# IMPACT OF SUSTAINABLE SUPPLY CHAIN LINKAGES WITH BOP FIRMS ON MNEs' INTERNATIONALIZATION: MEDIATING ROLE OF MARKET KNOWLEDGE COMPETENCE

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By

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## ABSTRACT

Multinational Enterprises (MNEs) are increasingly interested in engaging with Base of Pyramid (BoP) enterprises in host market as part of their global supply chain networks in pursuit of internationalization strategy. Recently, the literature in international marketing has emerged to shed light on potential of engaging BoP enterprises in MNEs' supply chain networks. Present study extends the theory of network internationalization. It investigates the influence of MNEs' sustainable/inclusive supply chain linkages with BoP enterprises in host market on market knowledge competence of managers and thereby internationalization strategy of MNEs in host market. Quantitative research design is used to empirically examine the key relationship theorized by the study. The data has been collected using structured questionnaire filled by sample of marketing/supply chain managers in MNEs which have maintained BoP supply chain cluster in their business model in Pakistan. The results of study indicate that sustainable/inclusive supply chain cluster linkages have significant positive impact on market knowledge competence of supply chain managers and on internationalization of MNEs in host market. Further studies may be conducted on BoP supply chain linkages of emerging market MNEs in home market to analyze its impact on their performance in foreign host markets. Nonetheless, findings of the study can be useful to managers in MNEs who are interested in their firms' market penetration in foreign host markets. The outcomes of the study also have implication for policy makers in developing countries interested in poverty alleviation through market based policy interventions.



**Keywords:** Multinational Enterprises (MNEs), Base of Pyramid (BoP) enterprises, Internationalization Strategy, Sustainable/Inclusive Supply Chain Linkages, Market Knowledge Competence

## ABSTRAK

Syarikat Multinasional (MNE) semakin berminat untuk melibatkan diri dengan perusahaan Berasaskan Piramid (BoP) di pasaran tuan rumah sebagai sebahagian daripada rangkaian rantaian bekalan global yang mapan dalam mengejar strategi pengantarabangsaan. Baru-baru ini, literatur dalam pemasaran antarabangsa telah muncul untuk memperjelaskan tentang potensi melibatkan perusahaan BoP dalam rangkaian rantaian bekalan MNE. Kajian semasa memperluaskan teori pengantarabangsaan rangkaian. Kajian menyelidik pengaruh hubungan rantaian bekalan MNE yang mapan/inklusif dengan perusahaan BoP di pasaran tuan rumah terhadap kecekapan pengetahuan pasaran para pengurus, sekaligus mengantarabangsakan strategi MNE dalam pasaran tuan rumah. Reka bentuk penyelidikan kuantitatif digunakan untuk meneliti secara empirik hubungan utama yang dijadikan sebagai teori kajian. Kajian ini mengumpul dan menganalisis data menggunakan soal selidik berstruktur yang diisi oleh sampel pengurus pemasaran / pengurus rantaian bekalan di MNE yang mengekalkan kluster rantaian bekalan BoP dalam model perniagaannya di Pakistan. Keputusan kajian menunjukkan bahawa hubungan rantaian bekalan rantaian BoP yang mapan /inklusif mempunyai kesan positif yang signifikan ke atas kecekapan pengetahuan pasaran pengurus rantaian bekalan dan ke atas pengantarabangsaan MNE dalam pasaran tuan rumah. Kajian lanjut boleh dilakukan terhadap rangkaian rantaian bekalan BoP pasaran baru muncul MNE dalam pasaran tuan rumah bagi menganalisis kesannya ke atas prestasi di pasaran tuan rumah luar negeri. Walau bagaimanapun, penemuan kajian ini berguna kepada pengurus dalam MNE yang berminat dengan persaingan antarabangsa dan menembusi pasaran tuan rumah luar negeri. Hasil kajian ini juga mempunyai implikasi bagi pembuat dasar di negara-negara membangun yang berminat dalam menangani kemiskinan melalui campur tangan dasar berasaskan pasaran.



**Kata kunci:** Syarikat Multinasional (MNE), Perusahaan berasaskan piramid (BoP), Strategi Pengantarabangsaan, Rantaian rangkaian pembekalan yang mapan/inklusif, Kecekapan pengetahuan pasaran

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| | |
|---|---|
| ADB | Asian Development Bank |
| AMOS | Analysis of a Moment Structures |
| BoP | Base of Pyramid |
| BoPM | Base of Pyramid Market |
| BL | Backward Linkages |
| CB-SEM | Covariance-Based Structural Equation Modelling |
| EMNEs | Emerging Market Multinational Enterprises |
| FDI | Foreign Direct Investment |
| FL | Forward Linkages |
| HL | Horizontal Linkages |
| IB | International Business |
| IE | International Entrepreneurship |
| IM | International Marketing |
| IMF | International Monetary Fund |
| IMP | International Marketing and Procurement Group |
| LISREL | Linear Structural Relations |
| MDGs | Millennium Development Goals |
| MNE | Multinational Enterprise |
| MSEs | Micro and Small Enterprises |
| MSMEs | Micro, Small and Medium Enterprises |
| OYAGSB | Othman Yeop Abdullah Graduate School of Business, Universiti Utara Malaysia |
| PLS | Partial Least Squares |
| SBP | State Bank of Pakistan |
| SCM | Supply Chain Management |
| SDGs | Sustainable Development Goals |
| SEM | Structural Equation Modelling |
| SPSS | Statistical Package for the Social Sciences |
| SSCM | Sustainable Supply Chain Management |
| UN | United Nations |
| UNCTAD | United Nations Conference on Trade and Development |
| VB-SEM | Varian-Based Structural Equation Modeling |
| WTO | World Trade Organization |

# CHAPTER 1

# INTRODUCTION

## 1.1 Background of the Study

Over the years, theorists and practitioners in field of marketing have been concentrating their efforts on customers satisfy their needs and wants in unique ways. However, the prime concern has remained the same i.e. how to earn profits while becoming and remaining invincible market leaders. Moreover, the strategists including renowned researchers and scholars, for this purpose, keep on pointing out the untapped potential market segments and new market spaces. Dynamism is what opens up new horizons of strategies and evolutionary concepts. This is how back into 2002, about more than a decade ago, the term bottom of the pyramid (BoP) was coined by C.K. Prahalad (Prahalad & Hart, 2002; Prahalad & Hammond 2002) introducing the poor segment of the world population as a potential blue ocean market. The concept of blue ocean market refers to untapped market segments, which according to Chan Kim & Mauborgne (2004), should be the focus of new strategies by business striving for competitive advantage. The BoP market was represented as a blue ocean market that MNEs need to capitalize on by changing their business models to the characteristics and needs of this new market segment. The term Bottom of Pyramid was further replaced with Base of Pyramid by Landrum (2007) in order to neutralize the negative tone associated with the earlier term. According to Follman (2012), the concept of BoP was initiated by Prahalad unveiling the fact that the multinational businesses almost overlook the huge poor market making up approximately 4.5 billion of the world's total population and who, in words of Chikweche & Fletcher (2012), have a subsistence of less than USD 1500 per annum.

This segment must be captivating for multinational enterprises (MNEs hereafter) in the sense of carrying enormous profit potential (Prahalad & Hart, 2002, as cited in Kolk, Rivera-Santos, & Ruffins, 2012).

The concept of Base of Pyramid (BoP) takes the global market as a pyramid with respect to income of the consumers (See figure 1.1). The small fraction at the top tier (Tier 1) of the pyramid represents customers with the highest level of income and thus corresponds to the affluent class in developed countries such as the United States. Since most of the MNEs have been originated in this affluent world, their managers' views and business strategies are conditioned by their knowledge and familiarity with consumers at Tier 1. According to Parhalad & Hart (2002), BoP consists of 4.5 billion people (Tier 4), whose income is less than $1500 (PPP) per year. This market is characterized as informal economy, limited in quality and quantity of products, difficult to reach due to lack of marketing and physical infrastructure. These features of BoP has had, historically, made it invisible to the most of existing corporate sector yet many MNEs and national corporations are now experimenting with this potential market.

The BoP market is diverse in itself as explained by Rangan et al. (2011). Their study describes three income groups within BoP market with respect to their purchasing power that make up the 4 billion people at the BoP market. The segregation made is as follows.

- Extreme poverty: o$1 a day (1 billion people)
- Subsistence: $1-$3 a day (1.6 billion people)
- Low income: $3-$5 a day (1.4 billion people)

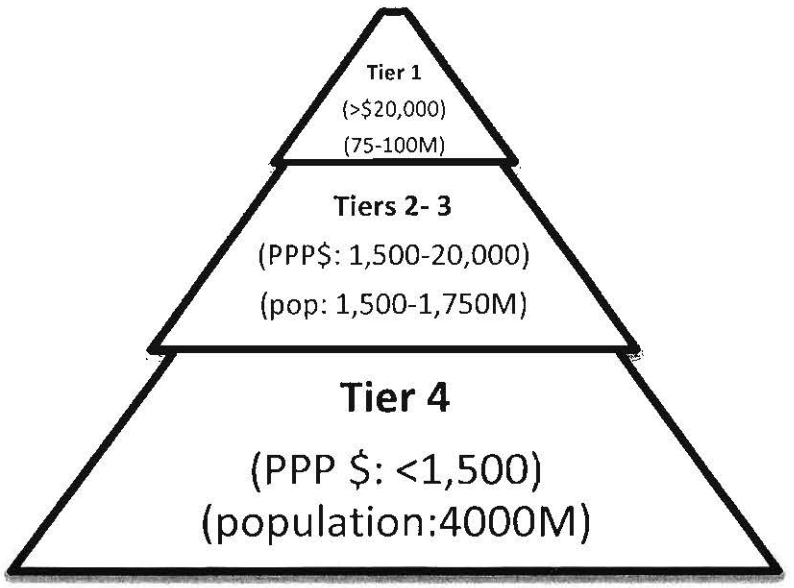


Figure 1.1
*The Income Pyramid*
Source: Prahalad & Hart (2000)



The BoP market is also characterized by geographical concentration with 70 % of it concentrated in Asia (Guesalaga and Marshall, 2008). According to Khilji (2012), largest share of BoP population is located in South Asian economies. This implies need for more empirically elaborated research on the BoP in the developing Asian economies in order to align MNEs' strategies with sustainable business outcomes in these blue ocean markets.

The idea and application of the Base of Pyramid (BoP) market was earlier presented by Parhalad and Hart (2002). Since then it has been under transition to consider the poor communities in the host market more as potential producers and business partners (BoP 2.0) than mere potential consumer market (BoP 1.0).

MNEs, in order to pursue a blue ocean strategy as advised by Chan Kim & Mauborgne (2004), are increasingly interested in engaging with micro and small firms

termed as BoP enterprises in host market to bring sustainability to their supply chain networks and internationalization strategy in host markets. The concept of sustainable/inclusive supply chain strategy was postulated by Gold et al. (2013). According to their study, MNEs need to ensure sustainable/inclusive supply chain strategy by linking their backward and forward supply chain activities with BoP enterprises in host market. The study, however, did not link the role of sustainable/inclusive supply chain linkages with the MNEs internationalization strategy or performance. On the other hand, the literature within corporate social responsibility, international business and marketing seldom offers economic and business rationale (i.e. bottom line) other than the philanthropic one for engaging the micro and small firms in the supply chain networks. According to Kolk eta al (2012), the idea of bringing the poor to the markets as entrepreneurs and business partners of MNEs was earlier coined by Hernando De Soto in 2000. Recently, a significant stream of literature has sought to look into the entrepreneurial role of micro and small firms as supply chain allies of large local and foreign firms. The potential of BoP enterprises for inclusive innovation and entrepreneurship has been the focus of research and practice of BoP 3.0.

The current study seeks to investigate and explain theoretical foundations and empirical evidence of 'doing well by doing good' concept by examining the impact of BoP supply chain network linkages on the internationalization strategy of MNEs in host markets. The current study theoretically proposes and empirically investigates how supply chain linkages between MNEs and micro and small firms in the host market lead to enhanced market knowledge competence about host market and thus influences internationalization strategy in host markets using evidence from Pakistan.

The issue of sustainability of economic policies and businesses strategies has fast gaining top position in the agenda of academic researchers, and economic and managers (Chataway, Hanlin & Kaplinsky, 2014; Oosterlaken, 2009; Sinkovics, Sinkovics & Yamin, 2014; Soete, 2014). Inclusive entrepreneurship and inclusive innovation are gaining interest from emerging and developing economies which are interested to use them as non-interventionist policy tool to alleviate poverty within markets based system. Newer stream of literature in the field of Base of Pyramid (BoP) sheds light on how MNEs can explore business opportunities in the poor communities by partnering with them in their supply chain network. According to Laal (2005), competitiveness of firms in the developing and emerging economies need to be policy focus to compete well in the globalized markets. The role and significance of MNEs is well established in global supply chain clusters as drivers of innovation, competitiveness and market outreach. Similarly, MNEs are also looking out for developing and emerging economies to greatly expand their potential target market and enhance their innovation capability. In order to bring relevance to their presence in developing economies, the mangers in MNEs seeks to align their business objectives with national needs and aspiration of policy makers in host markets. Studies by Narula (2010) and (Sodhi and Tang, 2016) have shed light on the role of small and micro firms (BoP enterprises) as allies in supply chain network of MNEs in host markets as mechanism and tool to improve their local embeddedness and internationalization performance in developing countries markets.

The issues of poverty, social exclusion and lack of competitiveness of firm sector in Pakistan and other developing economies has been well pronounced in the literature

(Laal, 2005; Siddiqui et al., 2010; UNCTAD, 2014; UNCTAD, 2015; UNCTAD 2016a). In its annual reports (UNCTAD, 2013; UNCTAD, 2014; UNCTAD, 2015; UNCTAD, 2016b), the United Nations Conference on Trade and Development (UNCTAD) has reflected on the need for inclusive economic growth and other inclusive economic policies emphasizing the potential role of linkages between MNEs and host markets in developing economies . This report stresses that the poorest countries should make greater policy efforts to make sure that the benefits of economic growth reach evenly to all sections of economy. A number of developing Asian economies i.e. Bhutan, Bangladesh and Afghanistan fall in the category of LDCs and are thus required to follow such policy prescriptions. Pakistan, similarly, also faces such challenges of ensuring inclusive growth that may extend economic and social opportunities to all sections of society.

Sustainability issues and challenges have moved from mere academic discourse and debate to the focus of policy and governance with international consensus. In 2015, 197 member states at United Nations expressed consensus to envision and implement 17 Sustainable Development Goals (SDGs). Paragraph 54 of United Nations General Assembly Resolution A/RES/70/1 of September 25, 2015 contains the goals and targets. The formal name for the SDGs is: "Transforming our World: the 2030 Agenda for Sustainable Development" that has been shortened to "2030 Agenda".


Figure 1.2
*United Nations' Sustainable Development Goals (SDGs) for 2015-2030*
Source: United Nations' Agenda 2030, "Transforming our World: the 2030 Agenda for Sustainable Development."

*The 17 Sustainable Development Goals (SDGs):* The Sustainable Development Goals (SDGs) (or Global Goals for Sustainable Development) are a collection of 17 global goals set by the United Nations in 2015. The formal name for the SDGs is: "Transforming our World: the 2030 Agenda for Sustainable Development" and are also termed as 'Agenda 2030' or 'Global Goals 2030'. These goals together encompass various dimensions of concept of sustainability and sustainable development that need to be addressed by nations at institutional and organizational level for a brighter future of current and future generations (Figure 1.2).

GOAL 1: No Poverty

GOAL 2: Zero Hunger

GOAL 3: Good Health and Well-being

GOAL 4: Quality Education

GOAL 5: Gender Equality

GOAL 6: Clean Water and Sanitation

GOAL 7: Affordable and Clean Energy

GOAL 8: Decent Work and Economic Growth

GOAL 9: Industry, Innovation and Infrastructure

GOAL 10: Reduced Inequality

GOAL 11: Sustainable Cities and Communities

GOAL 12: Responsible Consumption and Production

GOAL 13: Climate Action

GOAL 14: Life Below Water

GOAL 15: Life on Land

GOAL 16: Peace and Justice Strong Institutions

GOAL 17: Partnerships to achieve the Goal

Present study is linked to goals 1, 9, 12 and 17 above. The enquiry into impact of sustainable/inclusive supply chain linkages of MNEs with micro and small firms in host markets have implications for poverty reduction through a market based mechanism. The study of this emerging genre of inclusive business models is further related with the goals of industry, innovation and infrastructure; responsible consumption and production, and partnerships to achieve goals.

Pakistan has more than 180 million population along with vast natural and human resources and thus is considered an important potential market by MNEs. In its annual report on state of economy, the State Bank of Pakistan (2012) reflected on the need for inclusive economic policies that may enable entrepreneurial opportunities and decent jobs for the population at the lower end of economy. However, such policy deliberations largely depend on well informed recommendations founded upon rigorous research that may explain how engagement of BoP firms with supply chain

clusters of MNEs' subsidiaries operating in Pakistan may reap mutual fruits to both partners. A few yet significant studies shed light on the role of MNEs in Pakistan for inclusive entrepreneurship and social development. According to Gold et al. (2013), Nestle Pakistan has been pivotal in creating shared value by engaging poor dairy farmers mostly women in its supply chain strategy. This and other such studies reflect about the positive spill over effect of MNEs business in host markets. However, there has been seldom any study that may theoretically explain and empirically substantiate the impact of supply chain linkages with BoP enterprises on MNEs' internationalization strategy in Pakistan. The annual meeting of UNCTAD (2014) hosted a dedicated conference under the theme 'Investment for Development' in order to bring theoretical and policy consideration to the issue of development aspects of MNEs business activities and FDI in emerging and developing economies. The discussions focused on how to enable the MNE activities in developing host economies for contributing to the shared and thus sustainable value creation there.



A significant stream of research emphasizes that participation in global value chains can help alleviate poverty by bringing more jobs and entrepreneurial opportunities in developing countries. On part of MNEs, such supply chain partnerships enhance their competitiveness by upgrading their capacity to innovate and thereby increase the value-added of their activities (Morrison et al., 2008; Humphrey and Schmitz, 2002). Such sustainable/inclusive supply chain participation of MNEs in BoP markets has potential to bring in 'high road' to competitiveness-higher value addition through shared innovation. This strategy is in sharp contrast with the 'low road' to competitiveness by which firms in developing countries seek to compete by lowering wages and profits, rather than enhancing their productivity (Giuliani & Bell, 2005).

Though these studies recognize the endogenous knowledge and learning potential in low-income countries, yet also point to the potential of learning and capability accumulation in developing country firms through global value chain participation (Ángel & D'Andrea, 2010; Arnould & Mohr, 2005; Giuliani et al., 2005); Douglas-Fernandez, 2011; Humphrey and Schmitz, 2002; Kaplinsky, 2000). It thus necessitates new theories and business models of firms' internationalization which may explain the role and impact of sustainable supply chain linkages with BoP firms in host market i.e. inclusive innovation and inclusive supply chain on MNEs' internationalization performance.

## 1.2 Problem Statement

Managers in MNEs are greatly interested in enhancing firms' internationalization performance by incorporating sustainability initiatives into their respective business strategies in host markets. (Kolk and Van Tudler, 2010; Simanis and Hart, 2009; Rugman et al., 2012). The introduction of Sustainable Development Goals (SDGs) coupled with rising consumers' interest in social and environmental issues are driving MNEs strategies. Literature in international marketing has gathered focus on adaptation of business strategies along triple tier concept of sustainability i.e. economic, social and environmental (Arenas et al., 2011; Arevalo et al., 2011; Granados & Gámez, 2010; Hahn, 2008; Hahn & Gold, 2014; McKenzie, 2004; Morelli, 2011; Pogutz, 2007; Sharma et al., 2012; Wijen, 2008). Sustainable economic and business policy is getting on the top of agenda of policy makers and business managers (Preuss & Barkemeyer, 2011). Sustainable/inclusive supply chain strategies by linking BoP enterprises with MNEs' value chain network are being considered important tool to achieve the SDGs and bringing sustainability to MNEs

operations through a market based mechanism (Gold et al., 2013; Sodhi and Tang, 2016). These above developments point to the need of alignment of MNEs internationalization strategies with the issue of socially inclusive and eco-friendly business models in host markets.

Recent evolution of literature on BoP 2.0 and BoP 3.0 has shed light on bringing inclusive innovation and entrepreneurship, and economic development through market oriented business strategies (Rangan et al. 2011; London and Hart, 2010; Hart and Enk, 2006). Literature on second generation of BoP theories has shifted focus from inclusive markets to inclusive supply chains (Follman, 2012; Rashid and Rahman, 2009; Simanis and Hart, 2008; Kirnani, 2007; London & Hart, 2004). More recently Hart and Cañeque (2015) have introduced third generation stream of research in their book titled 'BoP 3.0: Sustainable Development through Innovation and Entrepreneurship'. These developments in the idea and practice of BoP as strategic component of business strategy are driving the business models and policy interventions at varying levels from international to local. Along with concept of shared value by Porter (2011), these studies offer potential implications for MNEs' internationalization, which is yet to be linked with BoP firms. These implications are for inclusive supply chain and inclusive innovation i.e. simultaneously adding to the competitiveness and internationalization of MNEs and BoP ventures in developing economies, respectively (Hall, Matos, Sheehan & Silvestre, 2012; Habib & Zurawicki, 2010; London & Hart, 2010). Despite the focus of these studies on inclusive/social entrepreneurship at BoP, however, there remains considerable uncertainty about how MNEs internationalization strategy be linked with entrepreneurial activities at BoP enterprises level (Hall et al., 2012; Webb et al.,

2010). These studies, moreover, discuss only little about internationalization outcomes of BoP 2.0 initiatives. Therefore, managers in MNEs render engagement with BoP market more as a philanthropic activity than a driver of their competitiveness and internationalization strategies in developing economies. There is need for theoretically grounded and empirically supported studies that my elaborate the impact of sustainable supply chain linkages with BoP enterprises i.e. inclusive supply chain and inclusive innovation in host market on market knowledge competence of MNEs staff and thereby MNEs' internationalization strategy. This study has filled in this gap by postulating the theoretical model and gathering empirical data on impact of sustainable supply chain linkages with BoP enterprises in host market on MNEs internationalization strategy with mediating role of market knowledge competence.

BoP markets and firms, on the other hand, are facing their own set of challenges which hamper their participation in global value chains and marketing system (Kolk, 2013; Meagher, 2013). These primarily include lack of firm-specific knowledge assets, lack of enforceable contractual relationships and scalability of operations by the BoP firms. MNEs are carriers of firm-specific knowledge assets and are drivers of global value chains. There is considerable literature on supply chain linkages between MNEs and local firms in host markets offer considerable implications for overcoming most of the institutional failures through engagement of MNEs in BoP markets through supply chain partnerships (Kolk, 2013; Rivera-Santos, Rufin & Kolk, 2012; Hall & Matos, 2010; Silvestre, 2014). However, according to Hall, Matos and Silvestre (2012) weak institutional support or uninformed policymaking related to entrepreneurship at BoP market may lead to poor outcomes and rather social

exclusion. Their study points to the need to engage MNEs as the hub of sustainable BoP supply chain cluster linkages in host markets. This study seeks to fill in this gap by examining the impact of sustainable supply chain linkages with BoP firms on MNEs internationalization performance in developing host markets.

Network theory of internationalization, moreover, explains the role of inter-firm linkages on MNEs internationalization performance (Johanson & Mattsson, 1988; Falize and Coeurderoy, 2012; Ray & Rahman, 2005; Seppo, 2007). These studies shed light on role of inter-firm linkages on MNEs' innovation, market knowledge competence, local embeddedness and reduced liability of foreignness in host market. There is need of study that may link the theoretical logic of network theory of internationalization with sustainable supply chain linkages of MNEs with BoP firms in host market to explain their market knowledge competence and internationalization in the host markets. A great detail of literature on network theory of internationalization and its potential linkages with the sustainable supply chain linkages i.e. inclusive supply chain and inclusive innovation between BoP enterprises and MNEs has been presented in next chapter.

In relation to network theory of internationalization, the concept of market knowledge competence is the key variable in the behavioural models of MNE internationalization and represents knowledge about host markets that would in turn influence firm's internationalization intentions and decisions. Ozkaya et al. (2015) define market knowledge competence as the processes that generate and integrate market knowledge and thus add to the stock of knowledge assets of the firm. Market knowledge competence includes customer knowledge competence, competitor knowledge

competence, and the marketing–research and development (R&D) interface (Li and Calantone, 1998; Atuahene-Gima and Wei, 2011). According to network theory of internationalization, the market knowledge competence gained through inter-firm linkages in business networks are significant contributor to MNEs internationalization performance in host markets. There is, however, need of a business model that may align the concept of market knowledge competence with the sustainable supply chain i.e. inclusive supply chain linkages and inclusive innovation with BoP enterprises in host market and thereby with MNEs internationalization strategy in host markets.

The specific features of BoP markets challenge academia and international marketers at MNEs to devise business models that cater to the unique features of this complex market to create value for shareholders specifically and for the stakeholders at large (Pitta, Guesalaga & Marshall, 2008). According to Khilji (2012) and UNCTAD (2015), developing economies in South Asia and East Asia have large BoP market segments yet these markets are constrained by poor economic and social capital, and lack the physical infrastructure. This results in the failure of mareketing staff at MNEs to effectively reach out and serve these BoP segments. According to Chikweche & Fletcher (2012), international marketing staff need to chalk out strategies that contextualise well with the constraints present in the BoP markets. Their study describes that the managers at MNEs have but only limited socialization with people at the BoP and thus lack the necessary firm-specific knowledge assets needed to outreach this potential market. These studies point to lack of poor market knowledge competence of MNEs' staff which is explained as the major hurdle in their internationalization performance in these host markets. Sousa & Lages (2011) have shed light on how psychic distance can be overcome in MNE strategy by allying with

local BoP partners in the host market. While these studies offer underlying theoretical support to the idea of bridging internationalization strategy of MNEs with BoP firms through supply chain linkages. Yet none of these studies shed light on its dynamism and process in a coherent manner. There is need to fill in this information gap by providing quantitative enquiry into the impact that such sustainable BoP cluster linkages can have on market knowledge competence and thereby on firms' internationalization performance in context of Pakistan.

MNE activity is also increasingly tilted towards emerging and developing economies with rising share of trade and investment flows to and from these economies (Pillania, 2009; International Monetary Fund (IMF), 2012; World Bank, 2011). Managers at MNEs are challenged to bring new business models in line with the market conditions of emerging and developing economies so as to successfully enhance their degree of internationalization in these new markets (Myer, Mudami and Narula, 2010). Similar idea has been proposed by Chan Kim & Mauborgne (2004) as the blue ocean strategy in which firms need to identify new markets as a major tool of their competitive strategy.

Literature on internationalization strategy of firms is recognizing the business opportunities at BoP and has devised strategic options available for MNEs to link their supply chains with business firms operating at BoP level. Faced with the issues of lagging competitiveness, poverty, lack of entrepreneurial activity, poor supply chain capabilities etc., economic managers in these markets tend to see MNEs as potential contributors to shared growth, inclusive entrepreneurship, competitiveness and global market participation (Seuring, 2012). Access to developing countries'

markets to capitalize on business opportunities at the BoP) may require MNEs to engage potential producers at BoP in their production processes and supply chain networks (Hart and Enk, 2006; Huang & Xue, 2012; Sodhi and Tang, 2016; Spers & Wright 2010; Karnani, 2007; Prahalad & Hart, 2000; Rangan et al., 2011; Rugman et al., 2009; Simanis & Hart, 2009). While the research on BoP has focused on MNEs, most of it to date is either theoretical articles or case-based research (Bruton, 2010). Also most of these studies examine the potential of BoP segment as potential consumer markets for MNEs. The issue of present study i.e. internationalization outcomes of supply chain linkages with BoP firms in host markets is lacking in the literature. Recently there are considerable research studies bridging the BoP firms with the supply chain cluster of MNEs (Arnould & Mohr, 2005; Huang & Xue, 2012; Douglas-Fernandez, 2011). Yet these studies do not explain the impact of inclusive supply chain linkages on internationalization strategy of MNEs in host markets. The concept of industrial cluster pioneered by Marshal (1907) has been subject of MNEs strategy for long. The studies by Siddiqui et al. (2013a, 2014b, 2016c) has also shed light on the theoretical linkage between BoP supply chain cluster and MNEs' internationalization. Yet their study lack empirical support from large industrial data set to make generalizable inferences. Other revisions of theory of internationalization have also recently emerged to accommodate the concepts of sustainable global supply chain and BoP markets in relation to MNEs expansion strategies into emerging markets (Buckley & Ghauri, 2004; Camisón & Villar, 2009; Cerrato & Depperu, 2011; Chen, Griffith & Hu, 2006; Chiarvesio & Di Maria, 2009; De Chiara & Spena, 2011; Ekeledo & Sivakumar, 2004; Elg, Ghauri & Tarnovskaya, 2008; Eren-Erdogmus et al., 2010; Ghauri, 2008; Kwon, 2010; Meyer, Mudambi and Narula, 2011; O'Gorman & Evers, 2011; Olejnik & Swoboda, 2012; Rugman et al., 2009).

To sum it up, managers in MNEs aspiring to enter developing markets lack theoretical and empirical information regarding the extent to which sustainable supply chain linkages with BoP firms may add to their market knowledge competence about host market and thereby influence there internationalization performance. Policy makers in developing countries are also facing the challenge of competitiveness of their micro and small & medium firms and tend to see BoP cluster linkages as a tool to make their BoP and SME ventures as part of globally competitive value chain networks. The present study has filled in this gap by investigating the impact of sustainable supply chain linkages with BoP enterprises (micro and small and medium enterprises/MSMEs) on the market knowledge competence and propensity to internationalization of MNEs subsidiaries in host market.

## 1.3 Research Questions



Given the research problem mentioned above, following research questions are identified to address it:

1. How does sustainable/inclusive supply chain linkages with BoP firms impact the propensity to internationalization of MNEs in host markets?
2. How does sustainable/inclusive innovation in supply chain linkages with BoP firms impact the MNEs' propensity to internationalization in host markets?
3. Does the relationship between sustainable/inclusive supply chain linkages with BoP firms and MNEs' propensity to internationalization in host markets is mediated by market knowledge competence?

4. Does the relationship between sustainable/inclusive innovation and the MNEs' propensity to internationalization in host markets is mediated by market knowledge competence?

## 1.4 Objectives of the Study

Answering to the proposed research questions has helped arrive following research objectives:

1. To examine and explain the impact of sustainable/inclusive supply chain linkages with BoP firms on MNEs' propensity to internationalization in host markets.
2. To investigate into mediating impact of market knowledge competence in the relationship between sustainable/inclusive supply chain and MNEs' propensity to internationalization in host markets.
3. To examine and explain the impact of sustainable/inclusive innovation arising from supply chain linkages with BoP firms on MNEs' propensity to internationalization in host markets?
4. To investigate into mediating impact of market knowledge competence in relationship between sustainable/inclusive innovation and MNEs' propensity to Internationalization in host markets.



## 1.5 Significance of Study

The research problem addresses the missing theoretical links found in the literature on sustainable supply chain cluster and MNEs' internationalization strategy in host markets. Sustainable BoP supply chain clusters linked with MNEs have potential for

MNEs to enhance their entry and growth into host markets in a sustainable manner. Thus the research problem addresses the gap regarding the impact of sustainable/inclusive supply chain strategy on MNEs' internationalization in host markets. The study question addresses the issue of lack of conceptual models that may link firms' engagement with BoP enterprises in their value chain network with important variables of firm performance such as internationalization. Outcomes of the study tend to enhance the understanding of academia, business managers and policy leaders to better understand the internationalization and competitiveness outcomes of MNEs' strategic engagement through sustainable supply chain linkages with BoP firms in host markets.

The markets in developing economies are abundant with poorly competitive and mainly informal micro & small enterprises (BoP firms) sector along with lack of entrepreneurial opportunities. On practical front, both managers of MNEs and policy makers interested in entry and growth of FDI through MNEs can benefit enormously through the study problem sought into. Findings of the study tend to guide strategies of MNEs in host markets and policy makers in developing countries and multilateral institutions such as UN, International Monetary Fund (IMF), World Bank, Asian Development Bank (ADB) and other development institutions interested in inclusive entrepreneurship and poverty alleviation in developing countries. Such sustainable value creation through sustainable BoP cluster linkages between MNEs and micro and small firms can also influence local embeddedness and cooperative capability of MNEs and thus may lead to better internationalization performance of their subsidiaries in host market. Use of quantitative methodology has provided generalizable empirical evidence and thereby enriches the understanding of role of

sustainable supply chain linkages with BoP firms in MNEs internationalization strategy in host markets.

## 1.6 Scope and Limitations of the Study

MNEs operating in developing countries have invested heavily into development of their supply chains networks and connected these to the global markets through internalized supply chain management models. The current study focuses only on foreign MNE subsidiaries and their BoP cluster networks in food and beverages sector of Pakistan. Those MNEs will be studied who already have supply chain linkages with BoP firms in Pakistan. In order to study the varying role of type of supply chain linkages i.e. upstream, downstream and horizontal linkages, the sample MNE subsidiaries are the ones which have enacted these varied linkages in their supply chain engagement with BoP firms in Pakistan. Similar study on other developing and emerging economies can bring out deeper insights about the postulated outcomes of the proposed model. In terms of time, cross sectional data gathered through structured questionnaire will be used for the purpose of the study. Only that part of MNEs' supply chain clusters is studied which involves BoP firms carrying out upstream and downstream activities i.e. backward and forward linkages. Network theory of internationalization along with second and third generation of BoP theory will guide the theoretical scope of the study model and relationship among variables. Market knowledge competence is treated as mediating variable in the relationship between BoP cluster linkages and MNEs internationalization strategies. Varying role of these or other variables can also be studied further for enhanced understanding of model dynamics.

Another dimension of the model, which needs further investigation, is MNEs from emerging and developing countries (Yaprak & Karademir, 2010). Impact of BoP cluster linkages of emerging market multinational enterprise (EMNEs/DMNEs) in home market on their international competitiveness and internationalization performance would offer rich insights on the dynamics of EMNEs' internationalization, which is still least understood yet emerging research area in international marketing. The theoretical and policy implications of the findings of study would make informed recommendations to various stakeholders like managers and theorists in international marketing, global supply chains and BoP enterprises along with policy makers in developing markets.

The study has focused on BoP supply chain linkages of local subsidiaries of foreign MNEs operating in food and beverages sector in Pakistan to analyse its impact on their market knowledge competence and internationalization. The choice of this sector has been due to a number of factors. Firstly, most of MNEs with BoP supply chain linkages were operating in the food and beverages sector and thus fulfilling the required context of the study. Secondly, food and beverages sector is also strongly linked with BoP consumer market. According to UNCTAD (2015), food and beverages sector in developing economies largely caters to the basic needs of poor communities. The discussion of the report implies that it is important to take necessary measures to enhance the competitiveness and outreach of this sector to the poor BoP market in developing economies. This particular characteristic of food and beverages sector is in line with the objectives of the study and therefore the study has focused on this sector. However, future studies may look into other sectors of host

market as well to see whether the dynamics of the proposed model of this study still hold.

## 1.7 Definitions of Key Terms

Definitions of terms are critical part of any scholarly debate and inquiry. These definitions convey meanings and avoid miscommunication of interpretations of the study and its findings. This section is dedicated to define the key terms used in this study. Though varied definitions are available for each of these terms yet the given below definitions are the ones used during inquiry of the present study and interpretation and presentation of its findings.

### 1.7.1 Multinational Enterprises (MNEs) and Subsidiary

The internationalization process of firms is mainly carried out by the business activity of Multinational Enterprises (MNEs). According to Forsgren et al. (2005) MNE is a business entity that controls resources and business activities across borders and that operates in and between various countries. According to Ghoshal and Bartlett (1990), "a multinational corporation consists of a group of geographically dispersed and goal-disparate organizations that include its headquarters and the different national subsidiaries". For the purpose of this study, it includes all wholly or partially owned subsidiaries of foreign headquartered MNEs operating in Pakistan.

### 1.7.2 MNEs Internationalization

Internationalization of MNEs or firms' internationalization is an important segment of literature in international marketing (IM) and international business (IB). MNEs' internationalization refers to MNEs' business activities in international markets which

is also termed as firms' internationalization. According to Galan et al. (1999) the MNEs' decision making related to internationalization strategy involves three dimensions: decision to go abroad; choice of location of foreign activities; and mode of entry into those locations.

### 1.7.3 MNE Subsidiary

Foreign subsidiaries of MNEs represent one of several market entry forms (Kutschker & Schmid, 2011) and are viewed by some IB scholars as "the actual manifestations of the MNE's international expansion" (Blankenburg Holm et al., 2009: 14). Since the present study has chosen the internationalization process of foreign subsidiaries as the core unit of analysis, it is important to define it precisely. This study follows the definition by Birkinshaw and Pedersen (2009) who defined the MNE subsidiary as a value-adding activity of MNE outside the home market and thereby referred to subsidiary companies where MNE enjoys controlling interest i.e. wholly owned and partially owned subsidiaries.



### 1.7.4 Subsidiary Internationalization

This study takes MNE subsidiary as unit of analysis to study the internationalization dynamics. The term subsidiary internationalization is also referred to as internationalization of the second degree of MNEs i.e. internationalization propensity and intensity at subsidiary level. It has been defined by Forsgren et al. (1992) as the process of increasing subsidiary involvement in international operations in the host market as mandated by the parent MNE.

### 1.7.5 Propensity to Internationalization as Measure of Subsidiary Internationalization

Propensity to internationalization as measure of internationalization strategy of MNE at subsidiary level has been used in the present study. Pauwels et al. (2009) define attitudinal dimension of internationalization strategy and refer to propensity to internationalization as a firm's overall intention or likelihood towards engaging in foreign operations through various modes of internationalization.

### 1.7.6 Market Knowledge Competence

Market knowledge competence is the key variable in the behavioural models of MNE internationalization and represents knowledge about host markets that would in turn influence firm's internationalization intentions and decisions. Ozkaya et al. (2015) define market knowledge competence as the processes that generate and integrate market knowledge and thus add to the stock of knowledge assets of the firm. Market knowledge competence includes customer knowledge competence, competitor knowledge competence, and the marketing–research and development (R&D) interface (Li and Calantone, 1998; Atuahene-Gima and Wei, 2011).



### 1.7.7 BoP Enterprise

According to London and Hart (2010), "BoP enterprises are revenue generating ventures that specifically target BoP demographics and include individual enterprises as well as interconnected networks of ventures, such as those found in franchise models or value chains". BoP enterprise is used synonym with micro and small enterprise (MSEs) and micro, small and medium enterprises (MSMEs).

### 1.7.8 Sustainable/Inclusive Innovation in BoP Network

Also termed as shared innovation, below the radar innovation, Foster and Heeks (2013) define the concept of inclusive innovation at BoP in terms of following four dimensions:

1. Inclusive innovation precursors meaning that innovation is relevant to the poor.
2. Inclusive innovation process meaning that the poor are involved in the development of innovative goods and services.
3. Inclusive innovation adoption meaning that the poor have capacity to absorb innovation.
4. Inclusive innovation impact meaning that innovative products have beneficial impact on consumers.



### 1.7.9 Sustainable/Inclusive Supply Chain Linkages in BoP Network

Businesses are often part of a larger network of organisations, a supply chain network consisting of inter-organization interaction that enables flow of information and materials across organisations. It involves all business transactions and logistics related to procurement of inputs and distribution of output to end consumers. BoP supply chain network consists of and MNE as a focal firm and BoP enterprises as members of upstream, downstream or horizontal supply chain activities to support MNE business operations (Gold et al., 2013; Sodhi and Tang, 2016). In context of sustainability literature, this is also termed as socially sustainable/inclusive supply chain linkages. This includes following categories.

***Backward Supply Chain Linkages:*** Also referred to as upstream activities, the backward BoP supply chain linkages refer to the engagement of BoP enterprises in production and procurement of inputs needed by MNEs (Sodhi and Tang, 2016).

***Forward Supply Chain Linkages:*** Also referred to as downstream activities, the forward BoP supply chain linkages refer to the engagement of BoP enterprises in distribution network to deliver MNEs products and services to end consumers including after sale services.

***Horizontal Supply Chain Linkages:*** Also referred to as providers of support services, horizontal supply chain linkages refers to the engagement of BoP enterprises as provider of support services to the core operations of MNEs.

## 1.8 Organization of Thesis

The study is to be structured in the thesis as follows. Chapter 2, after introduction, presents review of key literature for a detailed understanding of variables, their dimensions and relationships. Theories of BoP and BoP cluster/supply chain, sustainability, MNEs internationalization theories specially network theory of internationalization are reviewed in this section. The chapter also presents the proposed model of the study by translating research problem into theoretical framework, operationalization of variables and specific hypotheses which may need empirical evidence for their validation. Methodology in chapter 3 details out the research methods, sampling, data and analysis tools employed to examine relationships postulated by the model. The chapter 4 presents the results of the study such as descriptive summary statistics of the data and the hypothesis testing based on

inferential statistics. The chapter 5 elaborates the managerial interpretation of statistical findings of results of study and of each hypothesis tested in chapter 4. Other sub-sections of the chapter would discuss the implications for theoretical considerations, managerial decision making and public policy guidelines. This chapter also presents limitations of study and conclusion along with bibliography. Appendix section includes the key documents such as survey instrument/questionnaire and letter of authorization to collect data from OYAGSB, Universiti Utara Malaysia.

# CHAPTER 2
# LITERATURE REVIEW

## 2.1 Introduction: chapter outline

This chapter reviews and synthesizes key literature on the topic covering variables of the study and their relationship. This chapter describes review of literature on key variables of study and their theorized relationships. It therefore provides the reader with the content and context of research problem. Consisting of four sections, the chapter starts with section 2.1 to present the chapter outline and structure.

Section 2.2 describes a detailed review of firms' internationalization strategy which is dependent variable of this proposed study. The review of literature also sheds light on the operational measures of internationalization strategy termed as propensity to internationalization. Furthermore, theory of network internationalization is reviewed as the underlying theory to analyse the impact of MNEs' cluster linkages with BoP firms in host market on their propensity to internationalization. The network theory of internationalization is found to be suited most to analyse the behaviour of propensity to internationalization in response to independent variables of study because the BoP cluster linkages represent the network relationships of MNE with host country firms.

The section 2.3 elaborates the concept and theories of MNEs' internationalization strategy by synthesising the literature on firms' internationalization strategy with literature on Base of Pyramid (BoP) market and sustainability. The section deliberates that MNEs' can achieve better internationalization performance when their market commitment in host market is based on sustainable supply chain linkages i.e.

inclusive innovation and inclusive supply chain management with local BoP firms. Supply chain cluster linkages with BoP firms in host market therefore are proposed to enable MNEs achieve and strengthen their propensity to internationalization which is inclusive/sustainable in its process and outcome. Further subsections review the literature on transition from consumer-view to producer-view of BoP termed as second generation of BoP research. The area of BoP 2.0 seeks to explain the MNEs behaviour to engage the poor as business partners and co-inventors in their value network. More recently, the concept of BoP 3.0 has been introduced that claims to focus on inclusive innovation and inclusive entrepreneurship as the pillars of BoP 3.0 strategy. In the current study, the constructs of inclusive supply chain and inclusive innovation are taken as dimensions of sustainable supply chain strategy. The internationalization strategy of MNEs is represented by attitudinal measurement of economic indices i.e. propensity to internationalization.

Further, sections 2.4 offers review of literature on independent variables of study within the broad category of BoP supply chain cluster linkages and their dynamics for perceived psychic distance and MNEs' internationalization. This section reviews and synthesizes the literature on BoP supply chain cluster and MNEs' internationalization strategy. The role of MNEs in BoP supply chain cluster is discussed emphasizing the complementarity between MNE strategies and its sustainable supply chain cluster linkages with BoP firms.

The various subsections funnel down the discussion to the specific forms of BoP cluster linkages emanating from activities related to buying from the poor, selling through the poor and selling to the poor. These subsections also synthesise the

literature on these independent variables with MNEs' internationalization strategy - dependent variable of the study. The section 2.5 offers conclusion of literature review chapter.

The review of literature has also helped to strengthen the theoretical foundations of study by elaborating and operationalizing key variables. Later sections of this chapter also present the theoretical framework and hypotheses of the study to be tested using empirical evidence about impact of BoP cluster linkages on firms' sustainable degree of internationalization in developing countries.

## 2.2 MNEs and their Foreign Subsidiaries

The multinational enterprises (MNEs), their subsidiaries in host markets and their internationalization strategy are central to the argument of this study. It is therefore imperative to elaborate these concepts with help of relevant literature to set context of the study. Following sub-sections have been devoted for this purpose.



### 2.2.1 Multinational Enterprise (MNE)

The multinational companies (MNCs), corporations or more generally known as multinational enterprises (MNEs) are today the catalyst of most of the international trade and investment activity across borders. Given their international presence in the foreign markets in addition to their home market, usually three units constitute the MNE namely corporate headquarters, affiliated subsidiaries and the focal subsidiary in the host market. It has been defined as a business entity that controls resources across national borders and operates across various countries (Forsgren et al., 2005).

There exist many definitions of MNEs elaborating varied degree of resource control and varied level of cross-border participation found in various MNEs across countries, industry and product portfolios. However, the two aspects of MNEs definition i.e. cross-border resource control and business operations are the generic characteristics of all MNEs elsewhere. According to Forsgren et al. (2005), the multinational enterprise (MNE), is "one of the most significant institutions of modern societies".

Considering various dimensions of multinationality of MNEs in terms of ownership and operations, there is another dimension usually added to their definitions namely organizational strategy (Root, 1990). According to Perlmutter (1969), there cannot be a single criterion to evaluate a firm as multinational enterprise. Proponents of multinationality of ownership as the criterion to gauge the multinationality of firms propose that a firm qualifies for being an MNE if its stocks are simultaneously owned and controlled stakeholders of at least two countries. As has been mentioned, many international firms operating across borders may fulfil one criterion but may fail to comply with another.

To sum up, the two point criterion along with organizational strategy offers a robust definition of MNE that can be utilized for the purpose of this study. Based on the earlier work of Penrose (1959); Hymer (1977); Vernon (1971) and Behrman (1969) and founded on firm's organizational and strategic considerations, Root (1994) proposed a three-tier definition of MNE. The definition suggests that MNE is referred to as a business organization that has following three characteristics.

- It is engaged in foreign operations (productions or service delivery) through its affiliates located across border.

- It exercises control over its affiliates' strategies.
- It pursues organizational strategies in its operations that effects across national boundaries.

This above definition of MNEs suit to study into subsidiary internationalization and thus fits well with the present study. This definition not only considers cross-border business operations and control of resources and operations at home and at its foreign affiliates but also influences the business strategy across its value chain in its foreign host markets. These dimensions of MNE are desirable features required to study the supply chain linkages of foreign subsidiary of MNEs with BoP enterprises in host market and its influence on MNE's internationalization strategy in that market.

### 2.2.2 Foreign Subsidiary

Foreign subsidiary of MNE not only represent the form of market entry but also represents manifestation of parent MNE strategy in host markets (Kutschker & Schmid, 2011). According to Blankenburg Holm et al. (2009), these MNE subsidiaries in host market are also viewed as the actual representation of of the MNE's international expansion. Present study focuses on the propensity to internationalization of foreign subsidiaries of MNEs in host market of Pakistan as the core unit of analysis. The internationalization strategy of foreign subsidiaries in host markets is likely to be influenced by many factors (Tallman & Chacar, 2011).

According to Birkinshaw and Pedersen (2009), the MNE subsidiary is defined as a value-adding activity outside the home market. It usually includes wholly-owned subsidiaries of MNEs or subsidiaries in host market with controlling interest of the

parent MNE. Furthermore, Gatignon and Anderson (1988) have focused on degree of control for classifying the MNE subsidiaries in foreign markets. Their study offers following four types of MNE subsidiaries in host market.

- Wholly-owned subsidiaries
- Dominant partnerships
- Balanced roughly equally partnerships
- Minority partnerships

This classification also makes clear that all above forms of MNE subsidiary in host market require equity-based investment with controlling interest (Kutschker & Schmid, 2011). Although the later two forms represent equity investment lesser than that of partners, these may still qualify as MNE subsidiaries if the controlling interest rests with parent MNE using special means such as special voting rights etc.



It may also be noted that the definition of a foreign subsidiary of MNE goes beyond the usual measure of share of equity investment. Rather the definition also incorporates the organizational and strategic factors of parent MNE whereby it may still exercise dominant control over decision making. According to Morschett (2007), there may exist various non-equity-based forms of control over foreign subsidiary in the host market such as licensing, franchising, management contracts etc. This view is in line with Buckley (1983) who suggests that controlling property is more important in defining a foreign subsidiary than mere dominant equity ownership. This definition is in line with the definition of foreign subsidary offered by Birkinshaw and Petersen (2009) referring to the subsidiary's focus on adding value to the parent

MNE. This subsidiary definition also fits well with the objectives of present study to look at the propensity to internationalization of subsidiaries of foreign MNEs operating in Pakistan.

Though there exist various definitions and explanations of MNEs foreign subsidiaries, present study makes itself limited to wholly-owned MNE subsidiaries in order to avoid further complexity that may hinder the focused examination of influence of supply chain linkages of foreign subsidiaries with BoP enterprises in host market on MNE subsidiaries' propensity to internationalization. There, however, exist other forms of MNE subsidiaries that may be investigated also for their internationalization behaviour.

### 2.2.3 Foreign Market Subsidiary Mandates or Charters

The decision to set up a foreign subsidiary in host market by the parent MNE is due to a number of reasons. According to Dunning (1993) and Dunning (2003), the potential rationale can be market-seeking, resource-seeking, efficiency-seeking or strategic asset-seeking. The MNE subsidiary in host market can help the parent MNE in achieving either of its objectives. Thus the parent MNE with a controlling interest in the foreign subsidiary in host market decides on its mandate or strategic charter. The internationalization strategy of the foreign subsidiary in host market thus is influenced by the type of mandate and strategic charter advised by the parent MNE. The mandate of the MNE subsidiary in host market, in light of Dunning (1993) can be to facilitate the parent MNE in helping expand host market access (market-seeking), helping exploit location based advantage (resource seeking), helping gain more productivity or efficient resource allocation (efficiency seeking) and/or helping parent MNE in strengthening competitive position (strategic asset seeking. Thus the value adding

activities at subsidiary level in host market can be either limited to a certain objective or entire value chain (Kutschker & Schmid, 2011). In some cases, the subsidiary mandate or value addition in host market exceeds from that of parent MNE. According to (White & Poynter, 1984), such situation is termed miniature replica whereby subsidiary assumes larger responsibility of value addition over entire value chain. According to Rugman & Douglas (1986), in some cases, the host market subsidiary assumes total mandate/responsibility of a certain product to all market.

To sum up, the host market subsidiary mandate is a dynamic concept and it evolves over time as a result of interaction between host market strategy and parent MNE strategy (Birkinshaw & Hood, 1998). Moreover the classifications of the above foreign subsidiary mandate are not mutually exclusive. Rather most of them are overlapping during course of internationalization strategy in host market. According to Birkinshaw and Hood (1998), the subsidiary mandate reflects a shared understanding between the parent MNE and host market subsidiary about the subsidiary's mandate or scope of responsibilities.

Despite existence of various modes of host market subsidiary mandates, the present study focuses on the market seeking subsidiary mandate. The chosen industry is food and beverages in Pakistan where the dominant strategy of the MNE subsidiaries is usually market seeking. This simplification of subsidiary mandate has allowed avoiding the complexity that may hinder the true examination of the influence of inclusive supply chain linkages on host market subsidiaries' internationalization strategy.

Table 2.1 and table 2.2 elaborate the classification of literature that takes MNEs and the host market subsidiary as the unit of analysis in various studies. This classification has been founded on the studies by Rugman, Verbeke and Nguyen (2011) and Birkinshaw and Pedersen (2009), which have summarised the studies with MNE and foreign subsidiary as unit of analysis, respectively. In addition to these studies, a number of other studies also explain the internationalization strategy and its process at subsidiary level of MNEs.

### 2.2.4 Static versus Dynamic View of MNEs and their Foreign Subsidiary

The study by Rugman, Verbeke and Nguyen (2011) has classified the research studies in IB with respect to the unit of analysis used in those. As against the earlier studies using country as the unit of analysis to analyse cross border business activities (trade and FDI), modern studies have turned to analyse the firm level data taking MNEs as unit of analysis. The pioneer work by Hymer (19601, 1976) is considered as the ground breaking of this intellectual tradition to accord MNEs the position they deserve due to their role and share in cross border activities.

Recently research scholars have focused more on subsidiaries of MNEs in host markets as the unit of analysis as they represent the specific manifestation of MNEs' strategies in foreign markets. Taking foreign subsidiary of MNEs in host market has made possible to investigate more clearly into dynamics of their processes and outcomes. According to Markusen (2001), analysing cross border trade and investment requires international firms or their subsidiaries as unit of analysis due to their significant role in IB activities across markets.

Present research study seeks to analyse the influence of supply chain linkages with BoP firms in host market on the internationalization of MNEs' subsidiaries in Pakistan. This requires a clearer theoretical and operational understanding of MNE subsidiaries and scholarly viewpoints available about them in the existing literature.

There are currently two approaches used in the previous studies towards analysis of MNE subsidiaries i.e. static view and dynamic view. The study by Lohr (2014) has categorized the major themes derived from research studies taking MNE or subsidiary as unit of analysis and with respect to static and dynamic view. An elaboration has been presented in table 2.1 below.

In addition, the table presents the major topical areas of research under static and dynamic approach towards MNEs and their foreign subsidiary in host markets. Given the focus of present study to analyse the role of inclusive supply chain linkages as driver of subsidiary internationalization in host market, a dynamic view seems more appropriate. According to Kutschker & Schmid (2011), research studies need to focus more on the dynamic nature of subsidiary internationalization.

According to Lohr (2014), the matrix in and respective research questions presented in each quadrant are developed by screening available literature in web of science journals. However, the study cautions that the research themes are not restrictive and only give a guideline on the course of direction of existing research in the area of subsidiary internationalization.

Table 2.1
*Classification of literature of internationalization strategy with MNEs subsidiaries as unit of analysis*

| **Static Viewpoint** | **Dynamic Viewpoint** |
|---|---|
| Generic subsidiary roles (e.g. Bartlett & Ghoshal, 1986)<br>Specialized subsidiary roles (e.g. Rugman, Verbeke & Yuan, 2011)<br>World product mandate (e.g. Rugman, 1982)<br>Centres of excellence (e.g. Frost, Birkinshaw & Ensign, 2002)<br>Regional headquarters (e.g. Lehrer & Asakawa, 1999)<br>Divisional headquarters (e.g. Forsgren, Holm & Johanson, 1995) | Subsidiary evolution (e.g. Malnight, 1995)<br>Evolution determinants (e.g. Birkinshaw, 1977)<br>Subsidiary internationalization (e.g. Forsgren et al., 1992)<br>Internationalization trajectories of MNC units (e.g. Araujo & Rezende, 2003)<br>Dynamics of regional headquarters (e.g. Kahari et al., 2010) |

Source: Lohr (2014)

Lohr (2014) further classified the underlying theories of the research studies in the area of IB with respect to static and dynamic view of MNEs and/or their foreign subsidiary as unit of analysis. This classification presented in table 2.2 below has been useful to guide about which theoretical lens is more appropriate to study a particular research theme in this research area.

The network theory of internationalization has been stated as the underlying or founding theory for the research studies looking into dynamic nature of MNEs strategies e.g. divers of their internationalization. Given the thrust of current study to examine how internationalization of MNEs subsidiaries is influenced by their supply chain linkages with BoP firms in host market, it seems more appropriate to use network theory of internationalization to translate research questions into theoretical framework and specific hypothesis thereof.

Table 2.2
*Classification of literature of internationalization strategy with firm as unit of analysis*

| Static Viewpoint | Dynamic Viewpoint |
|---|---|
| Monopolistic advantage theory<br>(Hymer, 1960, 1976)<br>Transaction cost/ Internationalization theory (e.g.<br>Williamson, 1975; Buckley & Casson, 1976)<br>Eclectic paradigm<br>(Dunning, 1977)<br>Knowledge-based view<br>(e.g. Kogut & Zander, 1993)<br>Asset-seeking view<br>(e.g. Doz, Asakawa, Santos & Williamson, 1997) | Product lifestyle theory<br>(Vernon, 1966)<br>Uppsala model<br>(Johanson & Vahlne, 1977)<br>Helsinki school<br>(e.g. Bilkey & Tesar, 1977)<br>Network approach<br>(e.g. Johanson & Mattsson, 1988)<br>Innovation related approach<br>(e.g. Bilkey & Tesar, 1977)<br>GAINS paradigm<br>(Macharzina & Engelhard, 1991)<br>Resource-based view<br>(e.g. Teece & Pisano, 1994; Teece,<br>Pisano & Shuen, 1997) |

Source: Lohr (2014)

## 2.3 MNEs Internationalization

Internationalization strategy refers to the firms' decision to serve foreign markets, choice of markets to serve and mode of serving those markets (Galan et al., 1999). Theories of internationalization explain the dynamics of MNEs internationalization by elaborating on its aforementioned dimensions. Before moving towards internationalization theories, it is important to look at the conceptual and operational definitions of the term internationalization at both MNE level and host market subsidiary level. Development of conceptual and operational measures of firm internationalization has facilitated the research studies and resulting theoretical developments and policy recommendations in this area.

### 2.3.1 Subsidiary Internationalization

Present study focuses on the examination of internationalization strategy at subsidiary level of MNEs in host market in response to the independent variables such as sustainable supply chain linkages with BoP enterprises i.e. inclusive supply chain linkages and inclusive innovation. According to Forsgren et al. (1992), the term subsidiary internationalization is also referred to as internationalization of the second degree and has been defined as the process of increasing subsidiary involvement in international operations in host market as manifested in an official foreign market mandate.

This definition suggests that the subsidiary internationalization can take the form of either gradually increasing foreign sales or investment in the host market and may encompass any mode of entry that may facilitate increased participation in host market (Kutschker & Schmid, 2011). According to internationalization approach by Johanson & Vahlne (1977), it refers to gradual increase in the host market exposure i.e. moving from low commitment stages to higher commitment levels. This definition, moreover, is in line with the concept of 'born-globals' mode of internationalization explained by Weerawardena, Mort, Liesch & Knight (2007). Under this mode, the foreign subsidiary gets involved into foreign operations from the start of the venture. Furthermore, this definition also considers oward internationalization or continuity of internationalization i.e. deepening and greater penetration of the given mode of operations such as sales, employment and assets. The later component of this definition explains the direction of subsidiary internationalization referred to by official mandate as manifested by the parent MNE.

To sum up, the definition of MNE subsidiary internationalization sheds light on three valuable dimensions. First, the subsidiary internationalization reflects adapting the operations and resources of MNE subsidiary in host market to the local environment and thus represents subsidiary internationalization as a coordinated activity aimed at deeper involvement in host market (Calof & Beamish, 1995; Cavusgil & Czinkota, 1990). Therefore, the subsidiary internationalization occurs as a result of deliberate actions with medium to long term time horizon of MNE in host market in order to achieve certain corporate objectives (Cavusgil, 1984). This aspects ensures the dynamic view of internationalization strategy that may evolve as the degree of subsidiary internationalization increases in host market and also ensures resource sovereignty of the subsidiary (Ambos & Birkinshaw, 2010).

Secondly, the later part of the definition relating to the official mandate refers to close tie up between subsidiary and parent MNE. The subsidiary in host market thus becomes the manifestation of the parent MNE's strategy. This aspect has allowed the study of subsidiary internationalization as a reflection of MNE's internationalization strategy in host markets to exploit the objectives aimed at (Birkinshaw, 1996).

Finally, the aspect of official mandate manifested by the parent MNEs reflects an ongoing process of business operations in host market and thus represents degree to continue internationalization. Usually the term MNE internationalization refers to entry into new markets and decision on choice of mode of entry (Santangelo & Meyer, 2011). However, the decision to enter a market has already been made generally at the subsidiary level in host market. Thus the official mandate of MNE subsidiary internationalization represents the degree of penetration in host market in

line with the corporate objectives such as market seeking, efficiency seeking, resource seeking or strategic asset seeking. (Birkinshaw & Hood, 1998). In the present study, the subsidiary internationalization reflect propensity to continue internationalization assuming market seeking mandate manifested by the parent MNE.

### 2.3.2 Propensity to Internationalization as Measure of Subsidiary Internationalization

Propensity to internationalization which represents the behavioural dimension of internationalization of MNEs and their subsidiaries in host market refers to the perceived likelihood and possibility of internationality of operations and business outreach of a firm in host market (Sommer, 2009; Pauwels et al., 2009; Junior, 2010).

A number of other conceptual and operational definitions of MNEs internationalization have been in use in existing literature. Sommer (2009) has summarized literature on dimensions of firm internationalization into three categories i.e. structural, performance and behavioural dimensions. The structural indicators are related to organizational characteristics of MNEs as their extent of internationalization increases such as proportion of foreign sales, foreign employees, foreign affiliates, foreign assets (FDI), and foreign members on board. This also includes the no of foreign markets the firm is operating in and no of foreign stock markets the firm is registered with. The performance indicators solely focus on intensity of foreign activity of MNE measures by proportion measurement of foreign sales/net foreign income; foreign assets/commercial presence; and foreign employment. The attitudinal indicators include demographic characteristics of top management team; management

orientation such as ethnocentric, geocentric, polycentric; and propensity to internationalize (Sommer, 2009; Pauwels et al., 2009; Junior, 2010).

The studies in the area of internationalization strategy in IB literature have made use of internationalization indices as well to measure the internationalization activity. These empirical studies have mostly relied on indices of internationalization aiming to measure it using multiple indicators. The choice of indicators/variables for the measurement of internationalization has been addressed by various researchers such as Sullivan (1994, 1996), Dörrenbächer (2000), Hassel et al. (2003), Lipsey et al. (2001) and Ietto-Gillies (1989, 1998, 2002), Ietto-Gillies and London (2009), Ramaswamy et al. (1996), Heshmati (2006). A summary of various dimensions of firm internationalization has been described in table 2.3.

According to Ietto-Gillies and London (2009), construction of internationalization indices involves certain choices such as the level of aggregation used, i.e. firm, industry or country; and the internationalization modes which the study concentrates on, i.e. trade or FDI or alliances, etc. The choice of indicators/variables, moreover, also depends on the dimension of internationalization i.e. intensity or extensity to be measured. Three major indices used in the literature to study the phenomenon of firm internationalization (Dörrenbächer, 2000).

First, transnationality index (TNI) was appeared in the World Investment Report 1995 (UNCTAD 1995). The aim of the index is to "... capture fully the extent of involvement of TNCs [transnational companies] in the world economy" (UNCTAD 1995, p. 24). The index is measured using three performance and structural indicators

denominated as ratios i.e. foreign sales to total sales, foreign assets to total assets, and foreign employment to total employment.

A number of studies have made use of the above indices to study the firm internationalization (Ren, Eisingerich and Tsai, 2014; Shirokova & Tsukanova, 2013; Sun & Lee, 2013). However, these indicators take MNEs as unit of analysis and thus require expanded data sets on these indicators from a large number of firms to calculate those.

Table 2.3
*Dimensions of MNEs internationalization*

| **Dimensions** | **Description** |
|---|---|
| Structure | Organization Structure |
| Performance | Investments, Profit, Sales |
| Behavior | Management Attitude |
| Environment | Historical and Branch Environment |
| Strategy | Local differentiation/ global Standardization |
| Resources | Technological Skills/ Resource Allocation |

Source: Dörrenbächer (2000)



Given the focus of study on behavioural dimensions of internationalization strategy using mediating role of market knowledge competence, it has been more appropriate to use attitudinal measures of internationalization. In present study, the dependent variable, firm internationalization strategy, has been denoted by propensity to internationalization and has been measured using adapted operationalization framework developed by Pauwels et al. (2009); Junior (2010) and transnationality index (UNCTAD, 1995).

Present study has utilized measurement of subsidiary internationalization in host market by analysing perceived likelihood and possibility of increasing sales, jobs and

commercial presence as perceived by MNE managers in host market. This adaptation has not only allowed use of attitudinal measurement of subsidiary internationalization (likelihood and possibility) but has also combined it with hard performance indicators of subsidiary internationalization such as sales, employment and commercial presence/assets in host market.

## 2.4 Theories of MNEs Internationalization Strategy

Literature in international marketing and international business has had observed both growth and innovation in the studies pertaining to MNEs' business activities in international markets which is also termed as firms' internationalization. According to Galan et al. (1999) the MNEs' decision making related to internationalization strategy involves three dimensions: decision to go abroad; choice of location of foreign activities; and mode of entry into those locations. The study by Hafeez Siddiqui et al. (2014) has summarised the literature on firms' internationalization strategy and its measures surveyed from available literature. Various other studies have also provided a synthesis of the internationalization literature, including Johanson and Vahlne (2009), Buckley and Hashai (2009), Buckley and Ghauri (1999) and Dunning (2001).

These studies point to four major paradigms to study firms' internationalization strategy. First, industrial organization (IO) theory explained by Hymer (1960), (1976), Vernon (1966), Caves (1971), Agmon and Lessard (1977), Porter (1986), Markusen and Venables (1998), Helpman (2006). Secondly, internalization theory explained and studied by Penrose (1959), Buckley and Casson (1976), Casson (2000), Rugman

(1986), Rugman and Verbeke (2004). Thirdly, the transaction cost theory explained and studied by Williamson (1975), Hennart (1982). Fourthly, the eclectic theory explained and studied by Dunning (1980, 2000), Dunning and Lundan (2008).

Within these broad paradigms, the adaptations and innovations in the internationalization models have been introduced by the process model of internationalization (Johanson and Vahlne, 1977, 1990; Johanson and Wiedersheim-Paul, 1975), network theory of internationalization (Johanson, 1986; International Trade Center (ITC), 2010; Johanson and Mattsson, 1988; Johanson & Vahlne, 2009), innovation-based models (Cavusgil, 1980) and born global models (Knight et al., 2004; Knight and Cavusgil, 2005).

The above synthesis of internationalization theories of firms has also been classified into two major categories.



### 2.4.1 Economic Perspective on Internationalization Strategy

Within economic approaches to internationalization strategy of MNEs, following are the most usually recognized in the IB and IM literature.

1. Monopolistic advantage theory/Industrial Organization Theory
2. Product life cycle theory
3. Internalization theory
4. Eclectic paradigm
5. Resource-based view of internationalization

### 2.4.2 Behavioural Perspective on Internationalization Strategy

Behavioural theories of internationalization appeared during the 1970s as an alternative perspective to economic explanations. These theories have been classified as 'behavioural' to reflect their explanation of behavioural determinants of internationalization strategy of MNEs. Major theoretical approaches within this perspective include:

1. Foreign investment decision process (Aharoni, 1966)
2. Uppsala model of internationalization (Johanson and Vahlne, 1977; 1990; Johanson and Wiedersheim-Paul, 1975)
3. Innovation adoption models (Bilkey and Tesar, 1977; Cavusgil, 1980; Lim, Sharkey and Kim, 1991; Reid, 1981)
4. Evolutionary theory of the MNE (Kogut and Zander 1993)
5. Network approach of internationalization (Blomstermo et al., 2004; Bridgewater, 1999; Chetty and Holm, 2000; Coviello and Munro, 1997; Johanson and Mattsson, 1988; Johanson and Vahlne, 2006; Sharma and Blomstermo, 2003; Zain and Ng, 2006)



Given the focus of present study on the significance of inter-organizational relationships between MNEs and local BoP firms within the supply chain network in host market, network theory of internationalization has been utilized as the theoretical lens to study the study variables and their postulated relationships. A more detailed discussion has been presented in the following sections of this chapter.

## 2.5 Network Theory of Internationalization

According to Forsgren and Johanson (1992), inter organizational networks are defined as sets of connected relationships between actors controlling business activities. The

utilization of these inter-organizational networks has been in various areas of firms' international activities. These networks have been studied under names of industrial districts, supply chain cluster, alliances, join ventures, and licensing and franchising etc. The role of networks has been vital in the international operations of MNEs and, therefore, it is important for studying the internationalization of firms from a network perspective. Present study seeks to explain how the supply chain cluster relationships with BoP enterprises in host market can influence the propensity to internationalization of MNE subsidiaries.

### 2.5.1 Inter-firm Relationships in Business Networks

According to Håkansson & Snehota (1995), a business relationship or inter-firm relationship refers to mutually beneficial and reciprocal interaction between two business entities characterized by reciprocity, commitment, interdependence and mutual orientation. Business relationships are usually driven by business objectives whereby two firms develop ties to smooth flow of transaction and information/communication to achieve success (Anderson & Narus, 1991). These relationships are seldom characterized by legal documents, though there may exist certain contract agreements to abide by, and yet are mainly representing informal mutually useful relationships based on shared understanding and common objectives. Thus the inter-firm relationships can be thought of as on-going and long term collaboration between firms in various areas of business activities (Ellram & Hendrick, 1995). Success of these cooperative inter-firm relationships gives rise to various capabilities such as cooperative competence, network competence and market knowledge competence. These organizational competences thus become the foundation of cooperative advantage or network advantage in the competitive

marketplace where the firms are operating. In addition, there are certain saving in cost of business associated with sharing of knowledge and resources in inter-firm relationships. Siddiqui and Othman (2015) have termed it as economies of networking. To sum up, inter-firm relationship refers to both formal and informal collaboration between firms to smoothen flow of transaction and information/knowledge that may help reduce cost, improve quality and/or enhance market outreach. Inter-firm relationships are the building blocks of business networks.

Business network also known as cluster is referred to as the structured coordination of long term inter-firm relationships between two or more organizations (Thorelli, 1986). The structured coordination can be vertical as well as horizontal. Thus business network can be thought of as a web of vertical and horizontal inter-firm relationships. Also known as industrial districts and industrial clusters, these business networks represent inter-firm relationships between related firms and are the foundation of competitive advantage in the classical diamond model postulated by Porter (1995).



### 2.5.2 Network Competencies and Capabilities

Theory of network internationalization is based on certain organizational competences and capabilities which arise in the organization due to network membership. In context of present study, the supply chain linkages with the BoP firms in the host market give rise to a number of network competences and capabilities which in turn lead to enhanced propensity to internationalization of MNE subsidiary in host market (Trokkeli, 2014; Ngoma and Ntale, 2014; Hohenthal, Johanson and Johanson, 2014; Barbosa et al., 2014). The study by Trokkeli (2014) has summarized various definitions of competences and capabilities that accrue to the organizations involved

in cooperative inter-firm relationships in business networks. A summary of these definitions has been presented in Table 2.4.

Table 2.4
*Definitions of competencies associated with network membership at firm level*

| Concept | Definition | Source |
|---|---|---|
| Network Competence (Ritter et al., 2002) | The ability of a firm to develop and manage relations with key suppliers, customers and other organizations and to deal effectively with the interactions among these relations | Staff, organizational routine and policies |
| (dynamic) Network Capability (Walter et al., 2006) | The ability of a firm to develop and utilize inter-organizational relationships and to gain access to resources held by other actors | Relationship-specific resource configuration and their management |
| Networking Capability (Mitrega et al., 2012) | Organizational ability oriented towards managing business relationships along their development stages | The level of involvement in relationship management process |
| Co-operative Competence (Sivades & Dwyer, 2000) | A property of the relationship among organizational entities, consisting of trust, communication, and coordination | Staff, administrative mechanism |
| Alliance Competence (Lambe et al., 2002) | The ability to learn in relationships | The level of joint effort in relationships |
| Alliance Capability (Kale et al., 2002; Heimeriks & Duysters, 2007) | The level at which the firm is able to capture, share, and disseminate the alliance management know-how associated with prior experience | VRIN-type resources and application of learning benefits |
| Alliance Capability (Kale et al., 2002; Schreiner et al., 2009) | The level at which the firm is able to capture, share, and disseminate the alliance management know-how associated with prior experience | VRIN-type resources and application of learning benefits |
| Alliance Portfolio Capability (Hoffmann, 2007) | The ability of the firm to maintain and develop all the alliances of the firm as a whole | VRIN-type resources and application of learning benefits |
| Partnering Competence (Johnson & Sohi, 2003) | The ability of firms to build and maintain high level productive, inter-organizational relationships | System to capture lesson in relationships |
| Relationship Management Capability (Jaratt, 2008) | The infrastructure (i.e the relationship management system and processes, relationship memory and experience, and learning) | Learning in, behavior of, and infrastructure of relationships |

Source: Torkkeli (2014)

### 2.5.3 Summary of Studies on Network Theory of Internationalization

The network theory of internationalisation theory has emerged recently to explain the rising level of internationalization activity of MNEs. The theory first appeared within the Industrial Marketing and Purchasing (IMP) Group when its two members applied the concepts of inter-firm business relationships and networks to explain their influence on internationalization strategy of MNEs (Johanson & Mattsson, 1988). Built on social exchange theory (Cook & Emerson, 1978) and resource dependence theory (Pfeffer & Salancik, 1977), the network theory of internationalization argued firms' internationalization is a network phenomenon as firms are embedded in a web of connected relationships with supplier, resellers and customers (Johanson and Vahlne, 2009) as has been depicted in figure 2.1. Since then a number of studies have made use of network relationship of home market and host market to explain their influence on the firms' internationalization strategy. Ford (2002) described that the two most important examples of firm's networks are supplier networks and distribution networks. It has been argued that understanding internationalization can be enhanced when incremental models of internationalization are integrated with a network perspective.



The network approach to firm internationalization conceptualizes the international markets engagement process as leapfrogging. The member firms of a network enjoy greater support of inter-firm relationships and thus have access to utilize resources controlled by other firms in the network (Håkansson and Snehota 1989). There is strong learning effect associated with network that accelerates market knowledge accumulations about other network member firms, customers and market environment

in host markets (Johanson and Johanson 1999). As a result, the internationalization process of firm changes from gradual and sequential expansion to expansion in leaps.

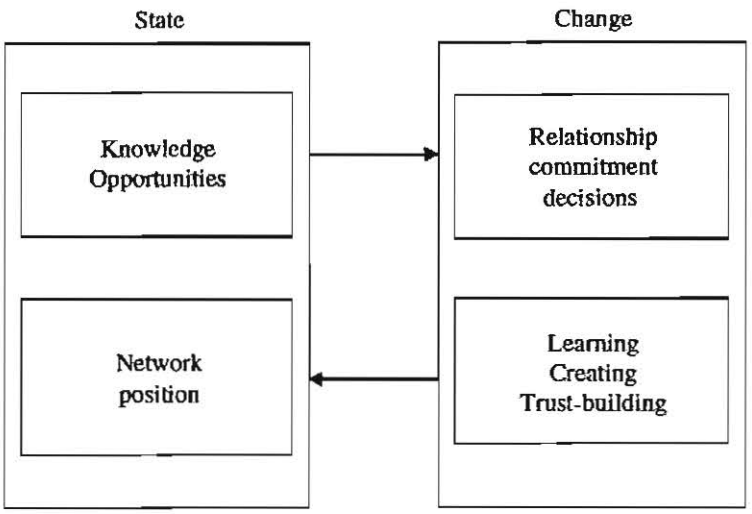


Figure 2.1
*Network Internationalization Process Model*
Source: Johanson and Vahlne (2009)

The organizational structure of MNE already follows the typology of an inter-organizational network comprising of parent MNE, affiliate subsidiaries and focal subsidiary in a certain host market. This network facilitates a host market subsidiary's inter-firm connections with other firms inside and outside the parent MNE's network (Birkinshaw 1997). The network competence and entrepreneurial orientation of management at host market subsidiary enables and fuels the value-added business activities and thus not only enjoys greater resource sovereignty and strategic commitment by parent MNE but also help achieve greater internationalization.

Thus the MNE subsidiary in host market has various choices regarding network participation and its development. A firm can avoid these network relationships and thus may miss the potential gains in terms of market knowledge competence and

access to network resources. In this situation, the subsidiary will follow the traditional sequential path of internationalization explained by Uppsala model. Alternatively, the subsidiary may opt to choose engagement in network ties in host market and its further extension to other potential member firms in the market. According to network theory of internationalization, this path of internationalization is characterized by strong learning outcomes and access to members' resources that can enhance the internationalization process on the patterns of leapfrogging and born global firms. Table 2.5 summarizes the application of network theory of internationalization in various studies in international marketing and international business literature.

In practical terms, within context of supply chain network, a business network involves relationships among a focal firm and its suppliers, distributors, customers and other providers of support services to the focal firm (Axelsson and Johanson, 1992; Zain and Ng, 2006). According to Zain and Ng (2006) following are the findings summarized from the literature regarding the impact of network relationships on the internationalization process and outcomes.

1. Trigger and motivate firms' internationalization (Andersen, 1996; Chetty and Patterson, 2002; Coviello and Munro, 1995; Ellis, 2000; Sharma and Johanson, 1987);
2. Influence firms' market-selection and entry-mode decisions (Bell, 1995; Coviello and Munro, 1997);
3. Provide access to additional relationships and established channels (Bjorkman and Kock, 1995; Chetty and Patterson, 2002; Coviello and Munro, 1995; Welch, 1992);

4. Provide access to local knowledge (Bucklin and Sengupta, 1993; Coviello and Munro, 1995; Fukuyama, 1995; Larson, 1992);
5. Provide initial credibility for internationalization (Chetty and Patterson, 2002; Coviello and Munro, 1995; Nahapiet and Ghoshal, 1998; Osland and Yaprak, 1995; Turnbull, Ford and Cunningham, 1996);
6. Reduce costs and minimize the risks of internationalization (Burgel and Murray, 2000; Chetty and Patterson, 2002; Coviello and Munro, 1995; Dichtl et al., 1983; Ellis and Pecotich, 2001; Hamilton, 1991; Morgan and Katsikeas, 1997b);
7. Influence firms' internationalization pace and pattern (Coviello and Munro, 1995; Jones, 1999; Lindqvist, 1988);
8. Constrain firms' future scope and market opportunity (Coviello and Munro, 1995);
9. Provide opportunities for internationalization (Dana, 2001).



According to International Marketing Purchases (IMP) approach of the network theory of internationalization, the internationalization strategy is conceptualized in the context of industrial networks i.e. through buyer-supplier relationships. Given the focus of the study to analyse the impact of supply chain network linkages with BoP firms in host market on MNE subsidiary's propensity to internationalization, this study has taken its roots from network theory of internationalization. The network theory has been found appropriate to explain the process and dynamics of supply chain linkages with BoP firms in host market on the internationalization performance of MNEs subsidiaries. MNEs' network linkages with firms in the host market have potential to significantly improve their internationalization performance by improving market knowledge competence and thereby reducing perceived psychic distance,

enhancing access to local resources and target customers, and better in-roads into host market (Johanson and Vahlne, 2009). More detailed description of implications of network theory in extending logic to the proposed theoretical framework is made later in this chapter.

Table 2.5
*Summary of studies of application of network theory of internationalization*

| Network-Based Theories | Application in Internationalization | Example empirical works |
|---|---|---|
| Relationship Approach | Selection an International Partner<br>Selecting a Foreign Market<br>Selecting an Entry Mode | (Andersen, 2002) |
| Social Network Analysis | International opportunity recognition | (Kontinen & Ojala, 2011) |
| | Selecting a Foreign Market | (Sharma, 1999) |
| | International performance | (Han, 2007) |
| | Internationalization speed | (Kiss & Danis, 2010) |
| Network Mapping Technique | Besides other approaches to justify cycle and countertrade internationalization | (Fletcher, 1996)<br>(Fletcher, 2008)<br>(Fletcher & Barrett, 2001) |
| IMP Interaction Approach | Countertrade Internationalization | (Ahlstrom & Westerlund, 1990) – ERROR |
| ARA-Model | Countertrade Internationalization | (Fletcher, 1996) |
| Network Embeddedness Approach | Lifecycle Internationalization | (Fletcher, 2008)<br>(Fletcher & Barrett, 2001) |
| Network based Approach | Internationalization Process | (Chetty & Blankenburg Holm, 2000)<br>(Hadley & Wilson, 2003) |
| Revised Uppsala Model | Internationalization Process | (Vahlne, Ivarsson, & Johanson, 2011) (Tavoletti, 2011) |

Source: Hosseini and Dadfar (2012)

### 2.5.4 Network Relationships and Market Knowledge Competence in Firms' Internationalization

The network competence, examined in context of firms' internationalization, lead to market knowledge competence. Accumulation of market knowledge about host market is the major determinant of firms; internationalization in host market. After a detailed review of network theory of internationalization, it is important to look at the

market knowledge competence associated with inter-firm relationships in network. The MNE activity is said to be knowledge driven and knowledge assets are said to be the major source of firm-specific advantage.

Among the pioneer behavioral theories of internationalization, the stage model of internationalization holds that knowledge plays a key role in internationalization (Autio, Sapienza, & Almeida, 2000; Johanson & Vahlne, 1977). The stages or theory Uppasala model of internationalization is based on the theory of the growth of the firm (Penrose, 1959) and the behavioral theory of the firm (Aharoni, 1966; Cyert & March, 1963). The model postulates that internationalization is an incremental process in which firms tend to increase their involvement in the host international markets incrementally as the firms gain more information and knowledge about those markets. This model suggests gradually internationalizing as firms acquire and accumulate experiential learning by doing business in host markets (Eriksson et al., 1997; Hutzschenreuter et al., 2007). According to Johanson and Vahlne (1977), acquisition of knowledge through the business activities of the firm reduces psychic distance (perceived difficulty of understanding about host market). As the market knowledge competence (knowledge about host market) of managers increases over time, the firm enhances its commitment to the foreign host market i.e. greater level of internationalization (Johanson & Vahlne, 1990). The mdoel further depicts that market knowledge competence is essential in explaining firms' decision to go to international markets and how quickly they expand. The model suggests that instead of ''objective'' market knowledge obtained from formal sources or others, the experiential knowledge obtained by doing business is much more important in determining MNEs market commitment decisions. Thus all those forms of business

activities that help managers acquire greater experiential knowledge (market knowledge competence) about host market will be more important in choosing the business model in host market.

Even after gaining much attention by stages model of internationalization, market knowledge competence remained in the emerging theories of internationalization in the 1990s. Another stream of research emerged during 1990s to explain the existence of businesses that internationalize early and quickly. This was referred to as 'born-global' model of internationalization (Oviatt & McDougall, 1994). Subsequent developments in internationalization theory brought together the research purview of international entrepreneurship (IE) scholars to examine internationalization strategy of firms (De Clercq et al., 2012; Zahra, 2005). This perspective combines theory originating in the internationalization literature with that originating in the entrepreneurship literature (Oviatt & McDougall, 2005; Rialp, Rialp, & Knight, 2005). Whereas the stage or Uppsala model focused on experiential knowledge to gain market knowledge competence, IE scholars brought forward more broader sources of knowledge and learning to explain firms' internationalizations (De Clercq et al., 2012). Thus market knowledge competence remained the major determinants or mediating variable in the internationalization models explained.

The so powerful concept of market knowledge competence remained successful to keep its place when network theory of internationalization was emerged after Johanson and Vahlne (2009, 2013) revisited their original Uppsala model. While they maintained that experiential learning is key factor in building market knowledge competence, they gave more space to relationship knowledge or network knowledge

in their network theory of internationalization. The network model emphasized that relationship knowledge contributes to market knowledge competence and thus influences the firms' internationalization. The model implies that relationship knowledge comes from the firms' membership of or participation in the local business networks through supply chain management, strategic alliances or other forms of business relationships. The relationship knowledge thus gained also tends to add up to the experiential learning of managers and thus drives and accelerates the internationalization strategy of MNEs in foreign host markets (Ozkaya et al., 2015); Ezuma and Ismail, 2017; Bhatti, Larimo and Coudounaris, 2016; Ibrahim, Abdullah and Ismail, 2016; Ozkaya et al., 2016; Casillas et al., 2015; Barbosa et al., 2014; Hohenthal et al., 2015).

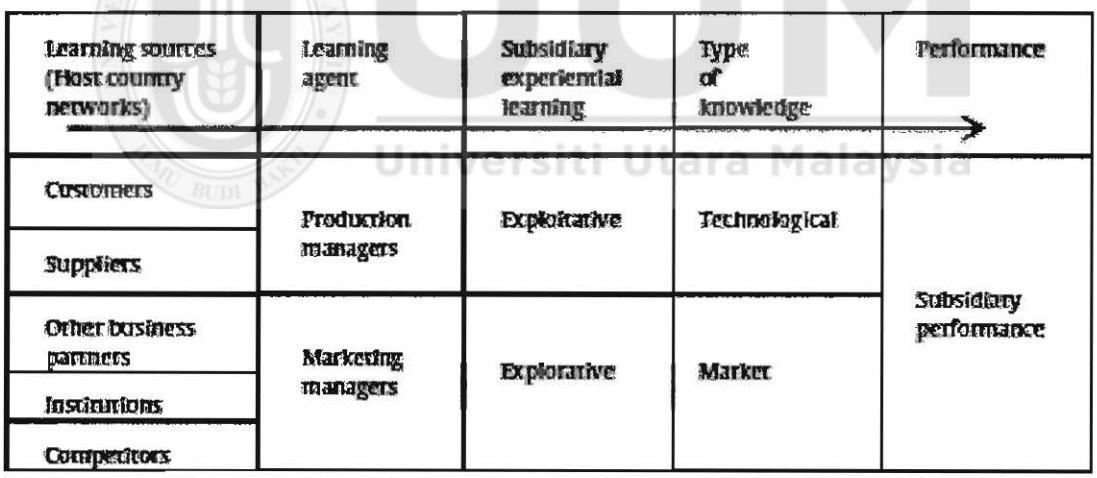


Figure 2.2
*Market knowledge flow of MNEs in host markets network and its relationships with internationalization*
Source: Bhatti, Larimo and Coudounaris (2016)

Thus as the new theories of internationalization emerge to explain and predict about how internationalization begins, what drives it, and how it develops, the market knowledge competence has maintained its center stage position. Knowledge and

learning are still at the core, but the view of what type of knowledge is critical has begun to expand. The present study seeks to look into how sustainable supply chain linkages with BoP firms influence the market knowledge competence of MNEs managers and thus enhance their internationalization.

The significance of market knowledge and learning schema exists both within the international marketing (IM) studies arena and in the broader management literature. In the stage model tradition, experiential knowledge obtained through business activities in foreign markets and objective knowledge derived from external sources comprise the core of knowledge and knowledge acquisition (e.g., Eriksson et al., 1997; Johanson & Vahlne, 1977). In the IE research stream on internationalization, a diverse range of knowledge types have been used (Bruneel et al., 2010; Fernhaber et al., 2009; Levesque, Minniti, & Sheperd, 2009).

In this present study, the interest lies in market knowledge competence of MNEs managers manifested by experiential knowledge and relationship knowledge indicators. This market knowledge competence is hypothesized to have been influenced by MNEs' sustainable supply chain linkages with BoP firms in host market. The model depicts MNEs management of sustainable supply chain linkages with BoP firms in host market as a vital mechanism of knowledge acquisition and thus enhancing the market knowledge competence of their managers. This market knowledge competence thus acquired is postulated to have positively influenced the MNEs internationalization in host market.

Network theory of internationalization proposes that inter-firm relationships in host market are the highway of knowledge and information about host market. In addition to providing direct learning about local market, customers and competitors, network linkages with local firms also help accumulate necessary knowledge assets for successful innovation suited to host market. According to Eriksson et al. (1997), market knowledge represents knowledge about buyers, suppliers, and competitors in the host market. The network relationship at subsidiary level can be intra firm network relationships i.e. relationship of host market subsidiary with parent MNE and other affiliate subsidiaries (sister subsidiaries). On the other hand, inter-firm relationships represent network relationships between host market subsidiary and local firms in host market. Figure 2.4 depicts these intra-firm and inter-firm network relationships of subsidiary in host market. Current study focuses on the analysis of inter-firm network relationships of MNE subsidiaries with BoP enterprises in host market through supply chain cluster linkages. The study seeks to analyze the knowledge competence that may thus be gained and the influence on the propensity to internationalization of MNE subsidiary in host market. Figure 2.2 depicts the model of network internationalization of MNE subsidiary based on knowledge competence developed by Barbosa (2014).

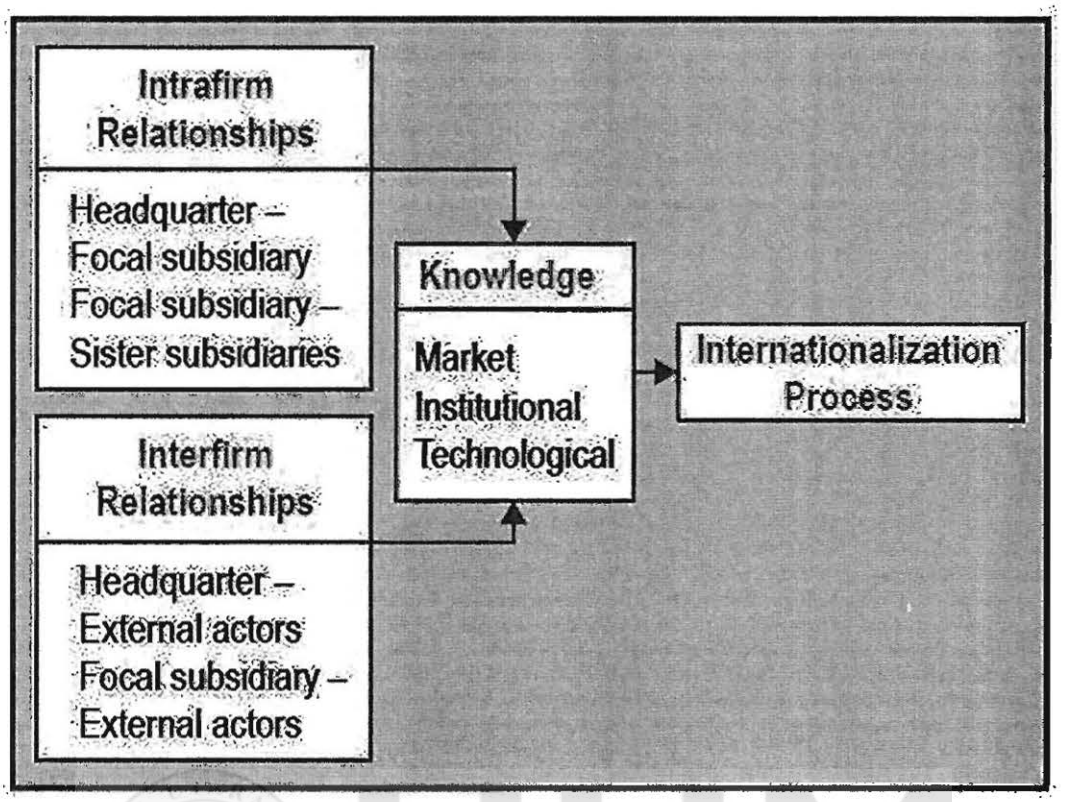


Figure 2.3
*Network relationships and knowledge competence in internationalization*
Source: Barbosa et al. (2014)



## 2.6 Sustainable Supply Chain Linkages with BoP firms in Host Market

This section looks into concept of sustainable supply chain linkages which are hypothesized to be the independent variable of present study. The concept of sustainable supply chain linkages encompasses two major dimensions i.e. green supply chain management and socially sustainable supply chain management. This study looks into social sustainability dimension of supply chain linkages of MNEs and seeks to enquires into its impact on market knowledge competence and thereby on MNEs internationalization in host market. The pioneering study by Gold et al. (2013) and a recent study by Sodhi and Tang (2016) has elaborated the role of sustainable supply chain strategy of MNEs in context of supply chain linkages of MNEs with BoP firms in host market. These studies explain that engaging BoP firms in the supply

chain by MNEs render their supply chain management as inclusive/sustainable. The social dimension of sustainability concept fulfilled by such inclusive supply chain management strategy by MNEs is based on engaging BoP firms in their supply chain network. Since, supply chain management is about flow of goods and information across firms, the sustainable supply chain strategy is explained in present study as inclusive supply chain linkages and inclusive innovation with BoP firms in host market.

Following sub-sections detail out the evolution of the concept of BoP and its integration with the supply chain strategy of MNEs in host market.

### 2.6.1 Evolution of BoP Market: From 'Consumer-View' to 'Producer-View' of the Poor Communities

Over the years, marketers have been seen concentrating their efforts on customers (their needs and wants). However, the prime concern has remained the same i.e. how to earn profits while becoming and remaining invincible market leaders. This market leadership view also pioneered corporate citizenship (CSR) as a source of competitiveness and sustainable development. Moreover, the strategists including renowned researchers and scholars, for this purpose, keep on pointing out the untapped potential market segments and new market spaces. Dynamism is what opens up new horizons of strategies and evolutionary concepts. This is how back into 2002, not more than a decade ago, the term bottom of the pyramid (BOP) was coined by C.K. Prahalad (Prahalad & Hart, 2002; Prahalad & Hammond 2002) introducing the poor segment of the world as a potential blue ocean market.

According to Follman (2012), the BOP concept was initiated by Prahalad unveiling the fact that the multinational businesses almost overlook the huge poor market making up approximately 4.5 billion of the world's total population and who, in words of Chikweche & Fletcher (2012), have a subsistence of less than USD 1500 per annum. This section must be captivating for MNEs in the sense of carrying enormous profit potential (Prahalad & Hart, 2002, as cited in Kolk, Rivera-Santos, & Ruffins, 2013). However, the concept of the poor to be business partners or entrepreneurs was being initiated by Hernando (2000) before Prahalad's contribution (Kolk et al., 2013).

The BoP concept was first articulated by C. K. Prahalad (Prahalad and Hammond, 2002; Prahalad and Hart, 2002) and focuses on benefits that can accrue when MNEs provide products and services to developing markets at the BOP. Such ventures, Prahalad (2005) suggests, can create new markets, entrepreneurs and customer bases while improving the MNE bottom line because of the immense cumulative purchasing power at the BOP. In addition, MNE involvement can succeed where governments have failed and help lift millions out of poverty. BOP consumers will have greater access to needed products, the use of which will lead to more choices, higher self-esteem and economic progress. The result can be a redistribution of wealth and social transformation that, by the year 2020, can change the economic "pyramid" into a "diamond" with a much larger middle class and progress toward a more humane and just international society (Prahalad, 2005).

In the ten years since the term "bottom of the pyramid" (BoP) was coined as a strategy for tapping the vast market of billions of the world's poor in South Asia and

other countries (Prahalad and Hart, 2002; Prahalad and Hammond, 2002), there has been growing worldwide interest in the topic.

In order to capitalize on the potential of BoP consumer markets, Prahalad's (2005) has prescribed twelve principles of marketing innovation for BoP markets that include alterations in customary price performance relationships, hybridizing technology for deployment in harsh environments, quest for sustainable and eco-friendly solutions, innovation to reduce costs and increase the scale of operations, deskilling work to accommodate those lacking developed skills, education of customers on how to use products; development of robust designs for hostile environments and better product distribution methods to the poor. Deskilling of work refers to separating the low skill labour intensive activities from the production process of MNEs to enable outsourcing these to SMEs in host market. That study took traditional view of BoP as consumer market and only made suggestions to firms for successfully targeting this new consumer market segment.



Studies by Karnani (2006) and Sridharan and Viswanathan (2008) have pointed out shortcomings of traditional 4 Ps model of marketing (product, price, place, promotion) in reaching and serving consumer needs and wants at BoP. Alternatively, Sridharan and Viswanathan (2008) put forward 4 Cs model to successfully target BoP market. This model includes customer cost, customer convenience, customer value and customer communications. Following up on the same line of work, the study by Sheth and Sisodia (2012) prescribes to apply 4 As i.e. affordability, availability, acceptability and awareness to capitalize business fortune at BoP. Later on work by Prahalad (2010) also suggests alternate 4 As with the same first three of the A's and

only replacing awareness with access. All these studies have built their argument on the assumption of BoP as a potential target market and source of business fortune for firms. These studies call for in-depth understanding of consumer needs and alternate ways of doing business in BoP markets.

### 2.6.2 Critics on BoP 1.0

The initial concept of BoP 1.0 as a potential blue ocean consumer market, however, has been criticized on the grounds that considering the poor merely a target market may not enable MNEs to understand it and consequently adapt their business model to serve this market (Follman, 2012; Karnani, 2006). Karnani (2006) raises a raft of concerns about Prahalad's BOP construct, to include not only BOP components and definitions, but also the validity and applicability of the case studies Prahalad used in his 2005 book. Apart from criticizing the Prahalad's assumptions over innovatively serving the BOP with the western production concept of MNEs i.e. producing and selling to the poor for profits by generating the so called need, Landrum (2007) as cited in Follman (2012) recommended to change Prahalad and his fellow researchers' term "bottom of the pyramid" to "base of the pyramid" in order to neutralize the effect of its negative tone. Most of the studies on first wave of BoP research have been conducted to analyze MNE activity in BoP market by treating them potential consumer market segment (Trevinyo-Rodríguez & Chamiec-Case, 2012). Yet this concept also raised critics on the ground that MNEs need to contribute more positively to the poor communities at BoP by looking at them not just potential consumers but potential producers or suppliers of inputs (Kirnani, 2007). According to Habib & Zurawicki (2010), considering the low income population as merely the potential target market for the sake of making profits doesn't sound socially

sustainable meaning that it fails to achieve socio-economic objective of alleviating poverty through business. Their study rather pointed to the fact that profit making objective from BoP may arise charges of the exploitation of the poor.

Given these strong criticism on the consumer view of BoP market and failure of the above said concept to address the issues of corporate social responsibility and failure of this view to address the issues of sustainability at firm level, the second and third generation of the concept has emerged recently namely BoP 2.0 and BoP 3.0

### 2.6.3 BoP 2.0 and BoP 3.0

The second and third generation of research on BoP i.e. BoP 2.0 and BoP 3.0 has moved into new direction. According to these research streams of BoP, the poor communities are to be valued and evaluated as the potential partners in the value network of MNEs (Follman, 2012). In another book on the BoP, Parhalad (2010) acknowledges the second generation BoP research and gives space to the idea of the poor as producers and entrepreneurs. His books asserts about the potential of collaboration between MNEs and the members of BoP to bring co-created solutions. London and Hart (2004) describe examples of successful and failed BoP initiatives and stress the importance for MNEs to form partnerships with local organizations in BoP communities and build local capacity instead of assuming that traditional business plans will work at the BoP. Local organizations, the authors stress, have invaluable experience with and information about their BoP communities and MNEs will likely fail in BoP initiatives without such partnerships.

### 2.6.4 Sustainable/Inclusive Innovation in BoP Supply Chain Network

Also termed as shared innovation, below the radar innovation, Foster and Heeks (2013) define the the concept of inclusive innovation at BoP in terms of following four dimensions:

5. Inclusive innovation precursors meaning that innovation is relevant to the poor.
6. Inclusive innovation process meaning that the poor are involved in the development of innovative goods and services.
7. Inclusive innovation adoption meaning that the poor have capacity to absorb innovation.
8. Inclusive innovation impact meaning that innovative products have beneficial impact on consumers.

### 2.6.5 Sustainable/Inclusive Supply Chain Linkages in BoP Supply Chain Network



Businesses are often part of a larger network of organisations, a supply chain network consisting of inter-organization interaction that enables flow of information and materials across organisations. It involves all business transactions and logistics related to procurement of inputs and distribution of output to end consumers. BoP supply chain network consists of MNE as a focal firm and BoP enterprises as members of upstream, downstream or horizontal supply chain activities to support MNE business operations. In context of sustainability literature, this is also termed as socially sustainable/inclusive supply chain linkages. Supply chain management has following three dimensions of its activities.

***Backward Supply Chain Linkages:*** Also referred to as upstream activities, the backward BoP supply chain linkages refer to the engagement of BoP enterprises in production and procurement of inputs needed by MNEs (Sodhi and Tang, 2016).

***Forward Supply Chain Linkages:*** Also referred to as downstream activities, the forward BoP supply chain linkages refer to the engagement of BoP enterprises in distribution network to deliver MNEs products and services to end consumers including after sale services.

***Horizontal Supply Chain Linkages:*** Also referred to as providers of support services, horizontal supply chain linkages refers to the engagement of BoP enterprises as provider of support services to the core operations of MNEs.

## 2.7 Knowledge Gaps in Linking Sustainable/Inclusive BoP Supply chain Linkages with MNEs' Internationalization Strategy



The newer generations of research on BoP 2.0 and 3.0 that stresses role of the poor as potential business partners, network allies and sources of inclusive innovation has brought with itself new theoretical, practical and methodological challenges. In terms of present research problem of influence of sustainable supply chain management i.e. inclusive supply chain and inclusive innovation linkages on MNEs' internationalization strategy, there are significant theoretical, practical and methodological knowledge gaps that are to be filled in by this research study through scientific enquiry.

### 2.7.1 Shared Value and Firm Theory of Internationalization

Recently, concept of shared value coined by Porter and Krammer (2011) has gained attention in IB research related to MNEs strategies in emerging and developing markets. It refers to practices and policies that improve the competitiveness of a company while simultaneously advance social and economic conditions in the local community. Economic and social progress both are addressed through the lens of value principles meaning that the social initiatives that help enhance value creation through market mechanism. And while the idea of 'doing well by doing good' is not new to business or to BoP (Prahalad, 2005; Karnani, 2007; DeNisi, 2007), yet, the notion of designing BoP initiatives around this concept by MNEs moves the field in a more purposeful direction of value creation (Porter & Kramer, 2011). The study by Sodhi and Tang (2016), proposes role of BoP firms as supply chain network members in order to exploit business potential of BoP market while also strengthening growth and competitiveness of large firms.



### 2.7.2 Missing Links in MNEs Internationalization and Sustainable Supply Chain Linkages with BoP Firms

On the theoretical front, the knowledge gap in the second and third generation BoP research lies in terms of lack of conceptual models that may link firms' engagement of BoP in their value chain network with important variables of firm performance. Kolk et al. (2013) have reviewed state of the art research in the area of BoP to track the evolution of the concept (See figure 2.3). Their study identifies the research studies along two dimensions i.e. position of the poor in the value network (the poor as consumers or producers) and the mode of engagement of the poor (the poor as recipient of firms' innovation or co-inventor).

The study by Kolk et al. (2013) thus identifies the knowledge gaps in the literature on BoP related to the possible role of various actors such as MNEs, local large firms, local SMEs, NGOs and government policy. According to this study, roles and strategy of these various actors may possibly alter the mode of engagement of the poor and their position in the firms' value network. It thus point to the role of supply chain linkages of MNEs with the BoP firms in host market to engage the poor for shared innovation and entrepreneurship in line with BoP 3.0 deliberations. Another area of missing knowledge link is the lack of studies on the sustainability outcomes of MNEs operations in developing host markets in terms of economic, social and environmental. The present study seeks to fill in this knowledge gap by focusing on outcomes that MNEs' sustainable supply chain cluster linkages with BoP firms may have on their internationalization performance. The study aims to conceptualize a sustainable model of supply chain and MNEs internationalization by which MNEs enter and penetrate in developing host markets around principles of inclusive supply chain and inclusive innovation. The resulting construct would enable a cross sectional (and potentially longitudinal also) analysis of MNEs' internationalization in host markets by describing engagement of the micro, small and medium enterprises (MSMEs) in their supply chain and product development strategies. There have been few studies which have explained the impact of sustainable supply chain linkages with BoP firms in home market on internationalization performance of emerging country firms. Yet there is seldom a study that looks into role of sustainable supply chain initiatives on internationalization outcomes of MNEs. By examining the role of sustainable supply chain linkages with BoP firms in host market on internationalization, moreover, the study would identify areas of improvement in

economic and social conditions of BoP communities in a way that may leverage MNEs performance.

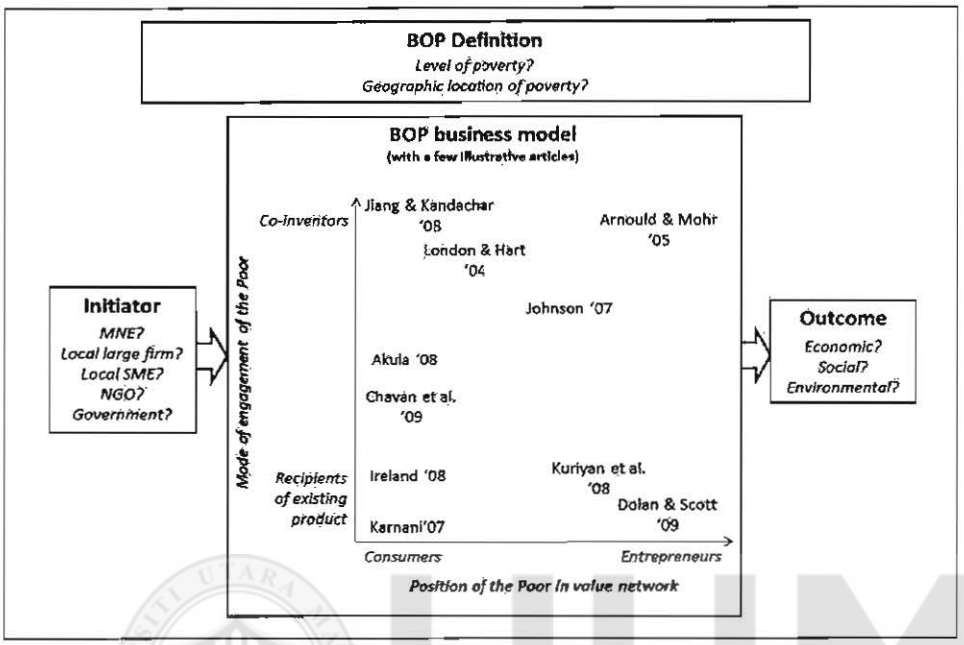


Figure 2.4
*Evolution of BoP concept from consumer-view to producer-view in firms' strategy*
Source: Kolk et al. (2013)



On the practical front, international marketers and managers at MNEs are aspiring to enter into emerging and developing economies. According to UNCTAD (2014), the developing economies in Asia account for the largest recipients of outward Foreign Direct Investment (FDI) flows. Yet these FDI flows into developing Asian markets are concentrated into China, Taiwan, Korea and Malaysia. There is a need on part of IB managers at MNEs to channel their business activities to the markets with large BoP segments. It necessitates the research study that may look into the outcome assessment of engaging the poor as network allies in these markets for enhancing MNEs' internationalization performance.

The methodological gap in the area of second generation of BoP research lies in the lack of quantitative empirical studies on antecedents and outcomes of MNEs' BoP initiatives on their performance variables along internationalization strategy. The findings of the review study by Kolk et al. (2013) reveal that a large number of outcome assessments of BoP initiatives are mainly along the triple tier approach of sustainability i.e. economic, social and environmental outcomes. Their study further identifies that most of these studies have made use of empirics from India following a much smaller number of cases and examples originate in Bangladesh, China, the Philippines, South Africa, Kenya, and Latin America, especially Brazil. Yet there is seldom any study that has been carried out and published in top tier journals in context of BoP impact assessment along MNEs' entry and growth i.e. internationalization into BoP markets.

Moreover, study by Kriauciunas, Parmigiani, & Rivera-Santos (2011) identify that most of these studies are limited to conceptual papers with empirics gathered using qualitative methodology specially the case study. There are only few studies with quantitative empirical evidence of the economic, social, and environmental impact of BOP initiatives (Follman, 2012; Kolk et al, 2013). This methodological gap necessitates the present research study that aims at quantitative empirical enquiry into impact of MNEs' supply chain linkages with BoP firms on their internationalization performance in context of developing Asian economies.

Interest in BoP is likely to continue because the topic brings together multiple and diverse perspectives – sellers, resellers, buyers, job creators, jobseekers, MNEs, local corporations, small and medium enterprises (SMEs), micro and small enterprises

(MSEs) and entrepreneurs – around the enticing idea that by collaborating, individuals and organizations can help improve the austere and difficult lives of billions of people at the BoP and also earn profits. There is growing evidence that the idea can work and after ten years there are clearer and better-defined structures and strategies to employ.

## 2.8 Theoretical Framework

The theoretical framework refers to summarized conceptual model that explains the variables of the study and their proposed relationship that are to be tested by research study. According to Creswell (2012), theoretical framework is based on review of available knowledge of the study variables and presents a structured plan for investigating and interpretation of results. It is depiction of the research problem statement in terms of specific variables of the study and their logical relationships as grounded into relevant theories. The theoretical framework discusses the underlying theory of the research problem and is presents hypotheses of the research study (Sekaran, 2009). Theoretical model thus seeks to describe the variables of the study that are to be measured and their relationship that are to be explained using empirical data. This study seeks to conceptualize and analyse the impact of sustainable BoP supply chain cluster linkages on MNEs' internationalization performance. Following sections shed light on the internationalization strategy of MNEs and its relationship with sustainable BoP supply chain linkages. The proposed research model is also presented in next section that hypothesises the dynamics of relationship between sustainable BoP supply chain cluster linkages and MNEs' internationalization mediated by market knowledge competence.

### 2.8.1 MNEs' Entry and growth into Foreign Host Markets: Linking Sustainable Supply Chain Linkages and Internationalization Strategy

The literature on Base of Pyramid (BoP) essentially points to the centrality of MNEs in entering and serving low-end consumers and producers in developing markets. From the pioneering studies by Parhalad & Hart (2002) to more recent studies by Gold, Hahn & Seuring (2013); Hall, Matos, Sheehan & Silvestre (2012); Kolk, Rivera-Santos & Rufín (2014); London (2007); Meyer, Mudambi & Narula (2011); Michelini & Fiorentino (2012), the future of MNEs success in international markets is explained by their ability to enter and engage poor consumers and producers in developing country markets. The newer stream of literature explains the potential of MNEs' pro-poor products targeted at BoP consumers and that of supply chain partnership between MNE and indigenous micro and small firms operating at BoP. Even the price-sensitive consumers at middle of pyramid (MoP) also can be best served by cost-effective partnerships with BoP suppliers in the developing country markets.



Economic and business strategies have been driven recently by the push towards sustainability. The term sustainability is defined along three tiers namely economic, social and environmental sustainability (Gold et al. (2013); Morelli, 2013; Slapper & Hall, 2011). The study by Slapper and Hall (2011) elaborates the concept of sustainability in terms of triple bottom-line approach i.e. people, planet and profit to denote social, environmental and economic dimensions of sustainable strategy, respectively. Whereas economic sustainability refers to the traditional concept of profit viability of the economic and business ventures, the social and environmental sustainability refers to the equitable and environmental-friendly dimension of business activities. MNEs and large firms have been focus of studies related to

sustainable business strategies because of their global presence through value chain networks and their large share in employment and output. The logic of triple-tier bottom line approach of sustainability needs to be applied to the MNEs' internationalization strategy. Present study seeks to fill in this gap by proposing triple-tier model of MNEs' internationalization (See Figure 2.3).

The existing indices of internationalization only measure the profit dimension or economic sustainability of firms' internationalization such as export performance (ratio of foreign sales to total sales), ratio of foreign assets to total assets, ratio of foreign employment to total employment etc. (Hafeez Siddiqui et al., 2014; Heshmati, 2006; Ietto-Gillies & London, 2009; Sullivan, 1996). These indices do not reflect the MNEs' internationalization performance along the lines of sustainability and therefore make it difficult for managers to set sustainable strategic directions. Bop supply chain cluster linkages between MNE and BoP enterprises in host market offer the possible route to attain social sustainability tier.

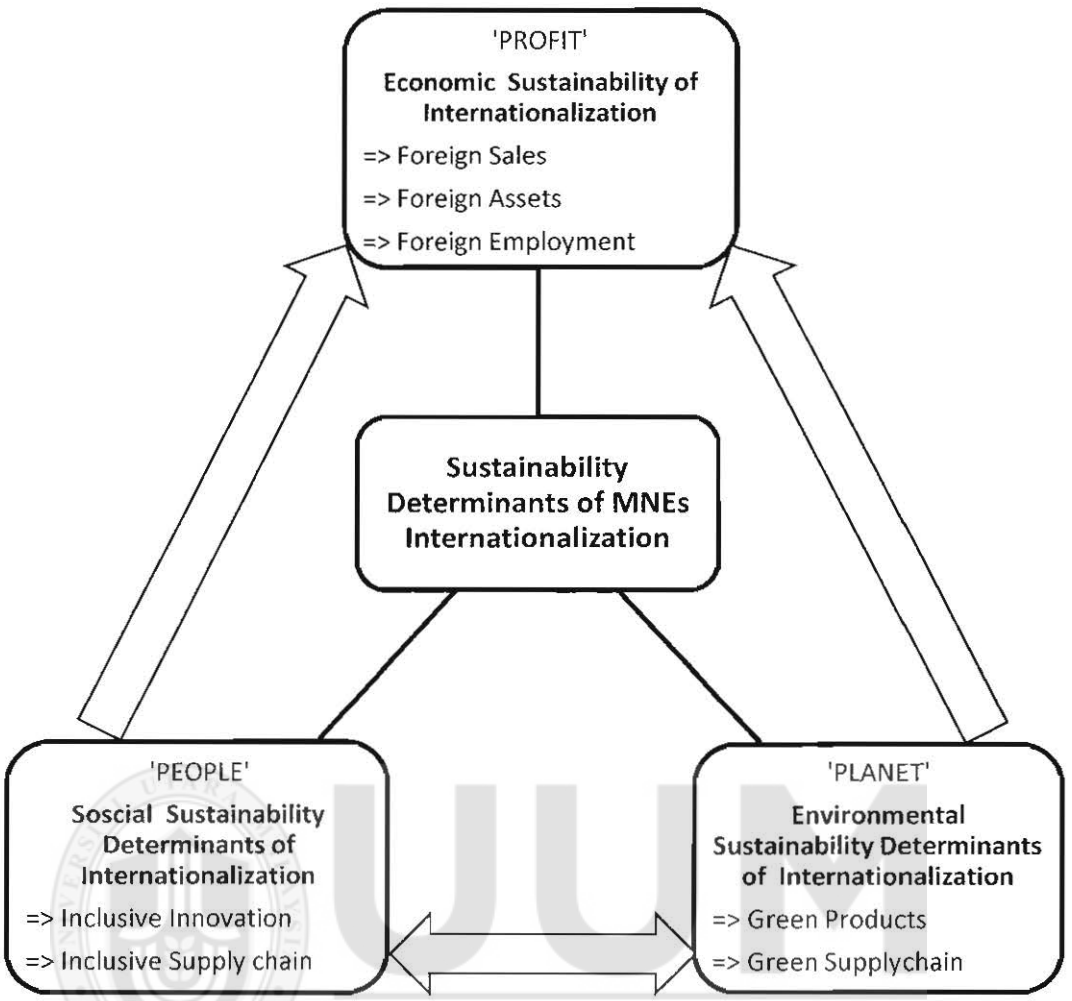




Figure 2.5
*MNEs' Internationalization Strategy and its Sustainability Determinants*
Source: From the study

Present study focuses mainly the social sustainability dimension and thereby seeks to address the issues of social sustainability of MNEs' internationalization strategy by managing sustainable/inclusive supply chain linkages with BoP firms in host markets. The social sustainability dimension answers to the question of whether internationalization strategy of MNE engages the poor communities in its production and/or product strategy in host market. Sustainable supply chain linkages i.e. inclusive innovation and inclusive supply chain, therefore, stand out as two determinants of internationalization strategy in addition to the existing indices used to measure the

economic tier of internationalization. In other words, socially sustainable internationalization reflects that business model and strategies of MNEs are people-friendly in home and host market in terms of their shared and inclusive nature. The social sustainability of internationalization strategy thus is determined by extend to which MNEs' products and their processes are inclusive in terms of targeting to and partnering with the poor sections of their host market. Parhalad & Hart (2002) have termed this poor segment of society as Base of Pyramid. As a result, firms' internationalization strategy in terms of social sustainability is to be determined by the extent of firm's targeting poor consumers and/or partnering with poor producers in host markets.

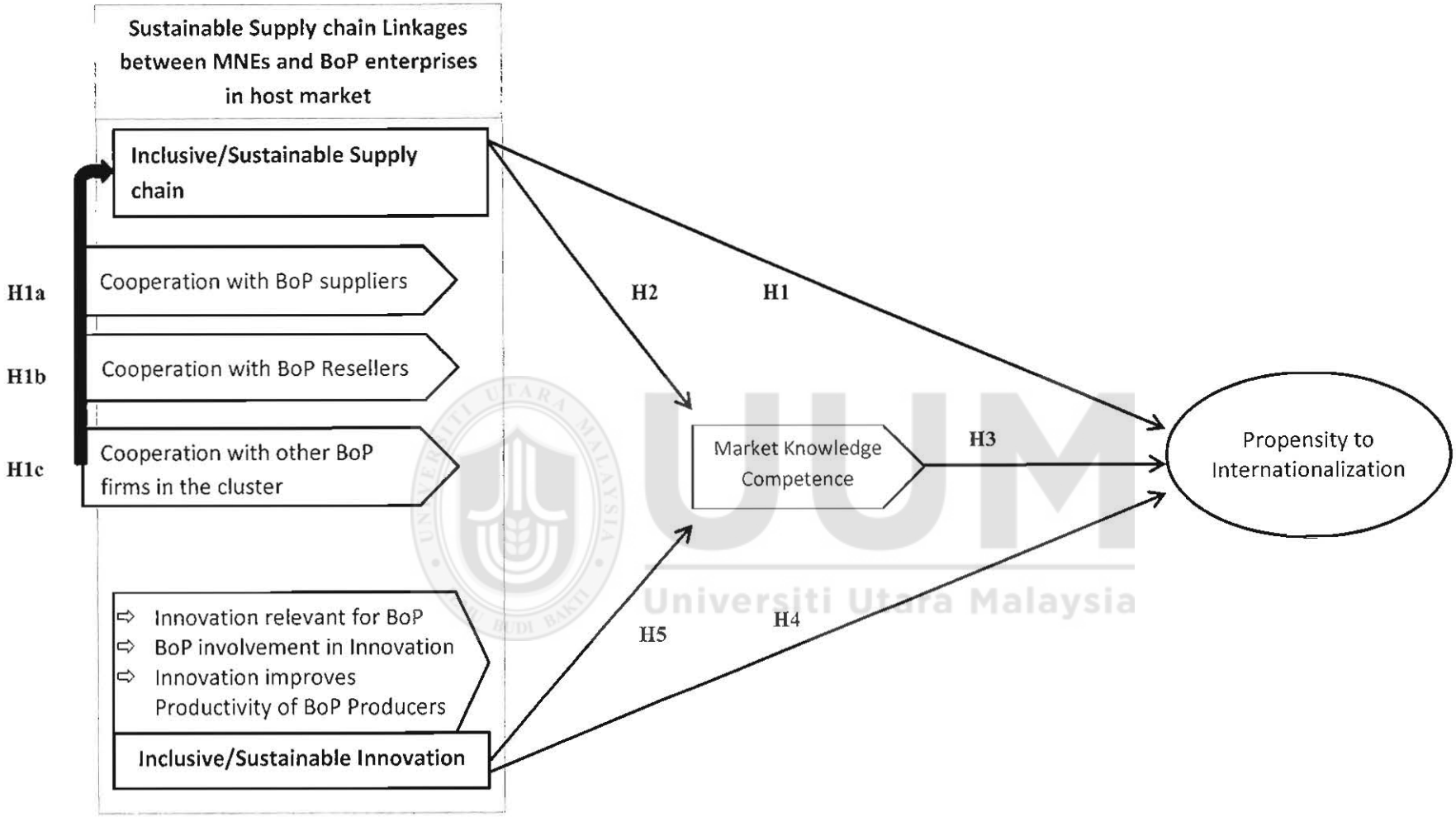


Figure 2.6
Research Framework

## 2.9 Proposed Model: Role of Sustainable BoP Supply Chain Cluster Linkages in Propensity to Internationalization of MNEs in Host Markets with Mediating Role of Market Knowledge Competence - Network Theory Perspective

The internationalization effect of business network membership in host economies has been explained well by theory of network internationalization (Johanson &Vahlne, 2009). This study refers to liability of outsidership in order to describe the competitive disadvantage resulting from non-membership of local networks by MNEs. The membership of networks enhances the knowledge accumulation process of MNEs and thus enhances market knowledge competence with the host market. Both Uppasala model and its revised network theory of internationalization elaborate the influence of network knowledge/competence on degree of internationalization of MNEs in host market. A number of studies have explained the internationalization outcomes of supply chain cluster linkages for MNEs (Musso, 2006; Yapark & Karademir, 2009; Chiarvesio & Maria, 2009; Cook & Pandit, 2012; Elg, Ghauri & Tarnovskaya, 2007; Libaers & Meyer, 2011). In a study to measure the impact of psychic distance on internationalization outcomes, Sousa & Lages (2010) have developed the measures of psychic distance termed as PD scale.

Membership of BoP supply chain cluster not only ensures sustainable supply chain management but is also destined to produce the similar internationalization outcomes for MNEs aspiring to enter in low-end developing country markets. This inductive assertion is also grounded into available literature in IB. The study by Meyer et al. (2010) explains the local embeddedness outcome for MNEs resulting from their network alliances with local firms. Partnering with micro and small enterprises (MSMEs) through BoP supply chain cluster adds to the market knowledge competence of managers at MNEs about host

market. Since the network partnerships are aimed at BoP firms, this makes the resulting supply chain strategy as socially sustainable and thus rendering it as sustainable supply chain strategy strategy. The study by Gold et al. (2013) has coined the term of sustainable supply chain resulting from MNEs' supply chain partnership with MSEs at BoP in host market.

H1 Sustainable/inclusive supply chain linkages with BoP enterprises in host market significantly improve firm's propensity to internationalization.

H1a There is significant positive influence of backward linkages with BoP suppliers on inclusive supply chain.

H1b There is significant positive influence of forward linkages with BoP resellers on inclusive supply chain.

H1c There is significant positive influence of horizontal linkages with BoP firms on inclusive supply chain.



### 2.9.1 Inclusive Supply Chain Linkages with BoP Firms in Host Market and MNEs Internationalization: Mediating Role of Market Knowledge Competence

Market knowledge competence is the key variable in the behavioural models of MNE internationalization and represents knowledge about host markets that would in turn influence firm's internationalization intentions and decisions. Ozkaya et al. (2015) define market knowledge competence as the processes that generate and integrate market knowledge and thus add to the stock of knowledge assets of the firm. Market knowledge competence includes customer knowledge competence, competitor knowledge

competence, and the marketing–research and development (R&D) interface (Li and Calantone, 1998; Atuahene-Gima and Wei, 2011).

Study by Camison and Villar (2008) explains the cooperative internationalization strategy of MNEs. Their study measures the impact of MNEs' cooperative capability on internationalization. Cooperative capability refers to the tacit knowledge of managers at MNEs to build and manage cooperative alliances arising from their experience of network membership. MNEs participation in the BoP supply chain cluster enables their managers to accumulate specialised experiential knowledge related to alliance management and alliance learning in the host market. This represents rise in level of the market knowledge competence and thereby leads to higher propensity to MNEs internationalization in host market. Hart (2005) has coined the term native capability that refers to local knowledge and expertise to operate in host market, which results from engaging with BoP enterprises in the MNEs supply chain. According to Meyer et al. (2010), MNEs tend to develop local embeddedness through their alliances with the indigenous firms in host market. The concept of local embeddedness is closely related to the network competence which is part of market knowledge competence of managers of MNEs in host market. The earlier sections in this chapter elaborates the rich body of literature that has looked into market knowledge competence and its role in firms' internationalization.

H2 There is significant positive influence of inclusive supply chain linkages on market knowledge competence of MNE managers in host market.

H3 There is significant positive influence of market knowledge competence of MNE managers on propensity to internationalization in host market.

H3a Market knowledge competence significantly mediates the relationship between sustainable/inclusive supply chain linkages and MNEs' propensity to internationalization.

### 2.9.2 Inclusive/Shared/Sustainable Innovation: Exchange of K-assets in BoP Supply Chain Cluster

Supply chain are characterised not just by flow of materials and products among the incumbent firms. The striking feature of supply chain management is managing flow of information and knowledge among the participant firms that becomes cornerstone of innovation in products and processes. According to Foster and Heeks (2013), a new form of innovation is taking place at low-end developing economies and is being described in literature under multiple names such as inclusive innovation, pro-poor innovation, below-the-radar innovation, BoP innovation and shared innovation. All of these innovation processes commonly represent the similar phenomenon of innovation resulting from sharing of knowledge assets (K-assets) between indigenous firms and MNEs in those markets. The underlying idea is to effectively and efficiently produce and deliver goods and services catering to needs of low-end consumers (Cozzens & Sutz, 2012). A number of studies have shed light on the knowledge spill overs of MNEs operating in host economies (Akbar & Ferencikova, 2007; Hu et al., 2011; Hart & Christensen, 2002). Porter and Kramer (2011) have coined the term shared value creation which refers to the shared innovation arising out of MNEs and BoP firms' supply chain partnership. The study by Hart and Christensen (2002) has pointed out the innovation potential of supply chain partnership between MNEs and BoP firms. According to Foster and Heeks (2013),

the concept of inclusive innovation at BoP looks at the innovation process along following four dimensions:

a. Inclusive innovation precursors meaning that innovation is relevant to the BoPM
b. Inclusive innovation process meaning that the BoPM are involved in the development of innovative goods and services.
c. Inclusive innovation adoption meaning that the BoPM have capacity to absorb innovation.
d. Inclusive innovation impact meaning that innovative products have beneficial impact on BoPM.

Present study focuses on the innovation outcomes of BoP supply chain cluster by which it seeks to analyse the impact of MNEs and MSEs alliance on the creation and utilization of K assets. Inclusive innovation process work for both MNEs and MSEs in BoP supply chain cluster. MSEs offer well needed knowledge about the informal markets prevailing at BoP to the managers of MNEs to enhance market outreach of MNEs. This experiential learning of tacit knowledge sharing through participation in the BoP cluster enhances market knowledge competence about host market and enables successful market penetration.

MNEs have large and specialized reservoir of K assets that enable them to exploit international markets. Yet effective entry of MNEs with their K intensive products and processes into BoP markets critically depends on the complementary labour-intensive services provided by the local BoP firms. These BoP firms lack the necessary K assets to

comply with the standards of operations and output aimed at by the MNEs. At this point, the sharing of well-needed and relevant K assets/ innovation by MNEs with their local BoP network allies enables them to enhance their market knowledge competence about the host market. Inclusive innovation resulting from sustainable BoP supply chain cluster linkages enhances market knowledge competence by improving the quality their of K assets and thus drives internationalization of MNEs (Barbosa et al., 2014).

H4 There is significant positive influence of sustainable/Inclusive innovation in BoP supply chain cluster on propensity to internationalization of MNEs in host market.

H5 There is significant positive influence of sustainable/Inclusive innovation on market knowledge competence of MNEs in host market.

H5a Market knowledge competence mediates the relationship between sustainable/inclusive innovation in BoP supply chain cluster and MNEs' propensity to internationalization.



## 2.10 Conclusion

To sum up, this chapter reviews and synthesizes the key literature on the topic of the current study. This review introduces the reader with context of the study, key variables to be studied and their relationships as grounded into literature. The theoretical framework proposed in this chapter has translated the research problem into specific hypotheses that will be tested using empirical data. This chapter has laid the foundation of the research design and methods which may enable answering research questions and test these hypotheses. It has provided theoretical foundation of the study and thus enabling

wider understanding of content and context of the study with reference to available literature.

# CHAPTER 3

# RESEARCH METHODOLOGY

## 3.1 Introduction

Research methodology is layout plan of the research study that describes, in a step-by-step fashion, research framework, research design, research methods and procedures to be carried out in order to answer the research problem aimed at (Creswell, 2012). In a hypothetico-deductive research design, as has been the case in this study, the objective of research methodology is to describe list of hypotheses, measurement of variables, sampling process, data collection methods and analysis strategy (Babbie, 2013; Creswell, 2013; Sekaran, 2009). Rigor of methods employed by the research study enables true scientific enquiry and critically determines effectiveness of findings in guiding theory development and decision making.



The review and synchronization of literature in chapter two has helped in developing theoretical foundations of study and deduce specific hypotheses to be tested using empirical data. The proposed theoretical framework and the resulting hypotheses that postulate the relationship between sustainable BoP supply chain cluster linkages with internationalization performance of MNEs are foundation of current chapter. After introduction, the next section sheds light on the broader research design namely quantitative explanatory research design that this study would follow. In section three, variables of study and their operational definitions are described followed by data collection and sampling methods in section five. Measurement, Questionnaire design and

data collection is described in section six and data analysis in section seven. Finally section eight presents summary and conclusion.

## 3.2 Research Design

Research design is structure of the research projects and the overarching research philosophy that is going to guide the scientific inquiry. The main purpose of a research study is either to build a theory or validate a theory referred to as inductive and deductive research approach, respectively (Babbie, 2013; Neuman, 2005). Theory development through inductive reasoning based on observation and logic helps researchers to describe, explain or predict events or behavior. Theory validation is needed when the researcher understands the research questions well and has the underlying theory to generate testable hypotheses, there is need to quantitatively test the hypotheses and/or validate the theory.

Inductive-deductive divide has led to three broad research designs to study any research problem namely qualitative, quantitative and mixed methods research design (Creswell, 2012). It is always a matter of debate among the researchers to whether use qualitative or quantitative research design to carry out a certain research study. Some call qualitative methods non-scientific stating that when the word theory is used in non-scientific manner, it is just a claim but when it is used in scientific manner, theory helps researchers generate testable hypotheses. The sequence of scientific research inquiry follows cyclical research process of inductive-deductive approaches as has been shown in the Figure 3.1 below (Bryman & Bell, 2009; Popper, 2005). It thus makes sense to use quantitative research design when the research problem is well understood and underlying theory is well

established to generate testable hypotheses subject to empirical evidence for their validation.

In the current study, the proposed model hypothesizes the relationship between sustainable BoP supply chain cluster and internationalization of MNEs. It thus qualifies for a quantitative explanatory research design that may gather empirical data from large representative sample using pre-defined structured questionnaire administered through survey. The findings obtained from quantitative research design can be used to generalize about the population because of the inherent rigor associated with scientific-driven quantitative methods applied therein (Creswell, 2012, Neuman, 2005; Price, 2015).

The explanatory research design is used when the research problem seeks to explain the cause-and-effect relationship between two or more variables. Given the research framework, present study seeks to examine and explain the effects of sustainable BoP supply chain cluster linkages on influencing internationalization of MNEs in the host market.

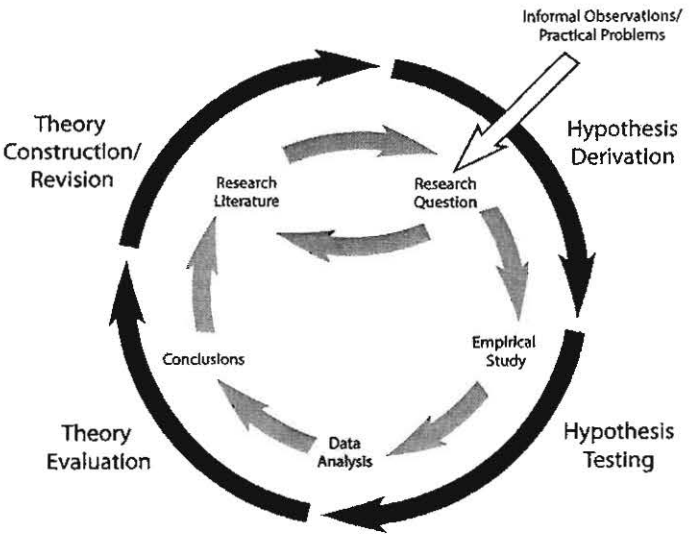


Figure 3.1
*Scientific Research Process*
Source: Price (2015)

### 3.3 Variables of Study and their Operational Definitions

In order to test the relationships among variables of the study hypothesized in the proposed theoretical framework by validating the hypotheses listed above, the variables need to be presented in the measurable/operational form. According to Neuman (2005) it refers to the process of converting concept into measurable construct as operationalization. Operationalization process involves a funnel approach moving from general to specific i.e. identification of concept, its dimension, its theoretical definition and operational definition. The concepts have to be operationalized in terms of measurable variables. According to Sekaran and Bougie (2009, p 127), "Reduction of abstract concepts to render them measurable in a tangible way is called *operationalizing* the concepts". Present study has followed the operationalization process as defined by Neuman (2005) to come up with operational definitions of variables of the study. Detailed

description of these variables and their relationship has been provided in the theoretical framework presented in literature review. Here the objective is to describe the operational definitions of these variables for their subsequent measurement in the data collection instrument and analysis.

Given the deductive approach used in the quantitative research design of the study, most of the operational definitions are taken from the previous studies that have quantitatively measured theses variables to study them. Since the context and objectives of these studies have been different from the current study, an exploratory factor analysis may be conducted using a pilot study to identify the valid and reliable indicators of a variable where needed. Exploratory factor analysis is a statistical data reduction technique that identifies the most representative indicators of a variable and sheds off others (Hair, 2014).



The variables of the study are categorized into dependent, independent, mediating and control variables. A detail of these variables and their classification is given in the table 3.8 and a summary of their measures is presented in table 3.9.

### 3.3.1 Dependent Variable

Variation of this variable depends on the other variables and for this reason it is termed as dependent variable. Dependent variables represent primary interest and issue of the research study is also referred to as criterion or result variables (Babbie, 2015; Sekaran, 2009).

***Propensity to Internationalization:*** In present study, the dependent variable, firm internationalization strategy, has been denoted by propensity to internationalization and has been measured using adapted operationalization framework developed by Pauwels et al. (2009); Junior (2010) and transnationality index (UNCTAD, 1995). This study has utilized measurement of subsidiary internationalization in host market by analysing perceived likelihood and possibility of increasing sales, jobs and commercial presence as perceived by MNE managers in host market. This adaptation has not only allowed use of attitudinal measurement of subsidiary internationalization (likelihood and possibility) but has also combined it with hard performance indicators of subsidiary internationalization such as sales, employment and commercial presence/assets in host market as has been depicted in table 3.1.

Table 3.1
*MNEs subsidiaries' propensity to Internationalization Measures (6 Items)*

| **Adopted/Adapted Items** |
|---|
| • Likelihood of the firm towards increasing sales in Pakistan market |
| • Possibility of increasing the firm's sales in Pakistan market |
| • Likelihood of the firm towards increasing employment in Pakistan market |
| • Possibility of increasing the firm's employment in Pakistan market |
| • Likelihood of firm towards increasing commercial presence in Pakistan market |
| • Possibility of increasing firm's commercial presence in Pakistan market |

Sources: Pauwels et al., 2009 & Somer, 2009

### 3.3.2 Independent Variables

This is also called the exogenous variable and represents the variable (s) that can be controlled and manipulated to explain its impact on other variables in the study (Sekaran, 2009).

***Inclusive supply chain linkages:*** These are defined as inter-firm linkages between MNEs and BoP firms through BoP supply chain cluster. These linkages can be backward i.e. with BoP suppliers, forward i.e. with BoP resellers/buyers, or horizontal i.e. with other BoP firms providing support services in the supply chain cluster. This variable has been operationalized by measuring the extent of MNE subsidiary's supply chain linkages with suppliers, resellers and other BoP firms in host market.

Inclusive supply chain linkages are influenced by the degree of backward, forward and horizontal linkages. The operational indicators to measure these linkages are presented in Table 3.2 to 3.5.



Table 3.2
*Inclusive Supply Chain Measures (3 Items)*

| Adopted/Adapted Items |
|---|
| • Supply chain cooperation with BoP suppliers |
| • Supply chain cooperation with BoP resellers |
| • Supply chain cooperation with other BoP firms |

Sources: Kongmanila & Takahashi, 2009

Table 3.3
*Backward Linkages Measures (4 Items)*

| Adopted/Adapted Items |
|---|
| • Exchange of information and experience |
| • Joint marketing (product development/market development) |
| • Negotiation of payment and delivery system |
| • Training participation |

Sources: Sodhi & Tang, 2016

Table 3.4
*Forward Linkages Measures (4 Items)*

| Adopted/Adapted Items |
|---|
| • Exchange of information and experience |
| • Joint marketing (product development/market development) |
| • Negotiation of payment and delivery |
| • Training participation |

Sources: Sodhi & Tang, 2016

Table 3.5
*Horizontal Linkages Measures (5 Items)*

| **Adopted/Adapted Items** |
|---|
| • Exchange of information and experience |
| • Joint marketing |
| • Joint product development |
| • Negotiation of payment and delivery |
| • Training participation |

Sources: Sodhi & Tang, 2016

***Inclusive innovation:*** This is defined as below-the-line innovation that stems from the information and knowledge flows between MNE and BoP enterprises within BoP supply chain cluster. Specific measures to operationalize this independent variable are described in table 3.6.



Table 3.6
*Inclusive Innovation Measures (3 Items)*

| **Adopted/Adapted Items** |
|---|
| • Adapts its products to make them relevant for BoP market |
| • Obtains ideas from BoP firms in its products and processes |
| • Shares its expertise to improve performance of BoP firms |

Sources: Foster & Heeks, 2013

### 3.3.3 Mediating Variable

This is also called intervening variable because of its time sequence and position that lies between independent variables and the dependent variables. This variable explains the route of influence of independent variable on dependent variable (Babbie, 2015). Market knowledge competence is hypothesized to have the mediating role in the proposed model because of its well explained mediating link with the internationalization strategy of MNEs.

***Market Knowledge Competence:*** It is defined as the extent of MNE subsidiary manager's perceived knowledge and capability about the host market. Ozkaya et al. (2015) define market knowledge competence as the processes that generate and integrate market knowledge and thus add to the stock of knowledge assets of the firm. Market knowledge competence has been measured by using six items construct that includes customer knowledge competence, competitor knowledge competence, alliance management knowledge, alliance learning capability and inter-organizational communication capability representing the marketing–research and development (R&D) interface (Li and Calantone, 1998; Atuahene-Gima and Wei, 2011). Measures of this construct and sources have been described in table 3.7

Table 3.7
*Market Knowledge Measures (6 Items)*

| Adopted/Adapted Items |
|---|
| • More and better knowledge about customers through BoP allies |
| • More and better knowledge about competitors through BoP allies |
| • More and better knowledge about local environment |
| • More and better understanding to manage supply chain activities at BoP level (alliance management) |
| • Information/communication systems have been adapted to integrate with BoP allies (alliance communication) |
| • More and better ability to share learning with BoP allies |

Sources: Ozkaya et al. (2015); Ezuma and Ismail (2017), Bhatti; Larimo and Coudounaris (2016); Ibrahim, Abdullah and Ismail (2016); Ozkaya et al. (2016); Casillas et al. (2015); Barbosa et al. (2014); Hohenthal et al. (2015)



### 3.3.4 Control Variables

These are referred to those extraneous variables in a study which can influence the dependent variable other than the independent variable and thus their undesired effect needs to be checked (Babbie, 2015; Creswell, 2012). A list of all these variables is given in table 3.1.

### 3.3.5 Other Operational Definitions

***BoP Enterprise:*** According to London and Hart (2010), "BoP enterprises are revenue generating ventures that specifically target BoP demographics and include individual

enterprises as well as interconnected networks of ventures, such as those found in franchise models or value chains". BoP enterprise is used synonym with micro and small enterprise (MSE).

***Multinational Enterprise:*** According to Ghoshal and Bartlett (1990), "a multinational corporation consists of a group of geographically dispersed and goal-disparate organizations that include its headquarters and the different national subsidiaries". For the purpose of this study, it includes all wholly or partially owned subsidiaries of foreign headquartered MNEs operating in Pakistan. A list of MNEs operating in food and beverages sector in Pakistan is given later in table 3.10 in the section on sampling design.

Table 3.8
*Variables of the study and their classification*

| | |
|---|---|
| Independent Variables | • Sustainable BoP supply chain linkages<br>⇨ **Inclusive supply chain linkages**<br>▪ **Upstream linkages**<br>▪ **Downstream linkages**<br>▪ **Horizontal linkages**<br>⇨ **Inclusive innovation** |
| Mediating Variable | • Market knowledge competence |
| Dependent Variable | • Propensity to internationalization |
| Control Variables | • Manager's position<br>• Manager's education<br>• Manager's training programs attended |

Table 3.9
*List of variables and their measures*

| Main Variable | Sub variable | Indicators | Source |
|---|---|---|---|
| **Inclusive Supply chain Linkages** | | • Supply chain linkages with BoP suppliers<br>• Supply chain linkages with BoP resellers<br>• Supply chain linkages with other BoP services providers | Sodhi & Tang, 2016 |
| **Dimensions of Inclusive Supply chain Linkages** | Cooperation with BoP Suppliers | • Exchange of information and experience<br>• Negotiation of payment and delivery<br>• Joint marketing<br>• Training participation | Kongmanila & Takahashi, 2009 |
| | Cooperation with BoP subcontractors | • Exchange of information and experience<br>• Negotiation of payment and delivery<br>• Joint marketing<br>• Training participation | Kongmanila & Takahashi, 2009 |
| | Cooperation with BoP Resellers | • Exchange of information and experience<br>• Negotiation of payment and delivery<br>• Joint marketing<br>• Training participation | Kongmanila & Takahashi, 2009 |
| | Cooperation with other BoP firms | • Exchange of information and experience<br>• Negotiation of payment and delivery<br>• Joint marketing<br>• Training participation | Kongmanila & Takahashi, 2009 |
| **Inclusive Innovation** | | • Innovation relevant for BoP firms<br>• Innovation that involves BoP firms<br>• Innovation that benefits BoP firms | Foster & Heeks, 2013 |
| **Market Knowledge Competence** | | • Knowledge about customers<br>• Knowledge about competitors<br>• Knowledge about local market environment<br>• Knowledge about supply chain activities<br>• Adaptation of information and communication system to integrate with BoP allies<br>• Alliance learning | Ozkaya et al., 2015 |
| **Propensity to Internationalization** | | • Likelihood of increase in sales<br>• Possibility of increase in sales<br>• Likelihood of increase in jobs<br>• Possibility of increase in jobs<br>• Likelihood of increase in commercial presence<br>• Possibility of increase in commercial presence | Pauwels et al., 2009<br>Somer, 2009 |
| **Control Variables** | | • Manager's age<br>• Manager's Qualification<br>• Training programs attended | Sousa & Lages, 2010;<br>Kongmanila & Takahashi, 2009 |

## 3.4 Sampling

Given the quantitative explanatory research design used to carry out this research study, the sampling and data collection strategy needs to be probability based sampling and structured survey, respectively. Detail on both sampling and data collection is described in following sections.

### 3.4.1 Unit of Analysis

The unit of analysis is defined as the major entity in a research study that is analysed. It is the unit which is the representative of the phenomenon to be studied and carries the information about the phenomenon or variables to be analysed. For instance, any of the following could be a unit of analysis in a study: individuals, groups, artifacts (books, photos, newspapers). Unit of analysis contains the information required to study the phenomenon or proposed model and it defines N or denominator in the sampling process (Bryman & Bell, 2015). In the present study, the unit of analysis is MNE represented by their marketing staff i.e. supervisory level staff serving in the supply chain and distribution network. The data about study variables such as sustainable supply chain management, the market knowledge competence and propensity to internationalization were obtained from the marketing staff of MNEs with BoP supply chain linkages operating in Pakistan. The information thus obtained from sample of marketing staff has been used to analyse the firm behaviour. This approach has been followed in the similar studies in marketing research (Ozkaya et al., 2015).

### 3.4.2 Sampling Design

Sampling design describes the choices about sample frame, sampling method and sample size (Bryman & Bell, 2015; Sekaran, 2009). Since purpose of scientific enquiry in social sciences is to produce generalizable results about the phenomenon under study, sampling design is critical to achieve this objective. Sampling design greatly influence the external validity of the research design that refers to generalizability of results.

A mistake in the choice of respondents may jeopardize the whole data collection and analysis efforts and outcomes. The target population of research study refers to the entire group of respondents who possess the information needed to answer the research problem and validate hypotheses.

In present study the population of interest is supervisory, middle level and top managers working in marketing/supply chain departments of foreign headquartered MNEs operating in Pakistan. Table 3.10 lists down the foreign headquartered MNEs operating in food and beverages sector in Pakistan. Each such manager is element of population of this study.

The choice of food and beverages sector has been influenced by the existence of supply chain linkages with BoP firms by most of MNEs in this sector which made possible to derive the sufficient sample size.

### 3.4.3 Sampling Frame

After finalizing population, the next step is to ascertain the sampling frame from where the actual sample is to be drawn. The sampling frame is list of all elements of the target population from which the sample can be drawn using either of sampling methods. Mere existence of sampling frame may not be sufficient enough to draw the sample respondents. In the present study, the HR department of each sample MNE were requested to provide the list of their top level and middle level managers involved in marketing /supply chain management. Yet the request was denied due to privacy issues. However, the HR departments allowed distributing the questionnaire of the studies to their supply chain and marketing staff. In addition, the marketing/supply chain managers were contacted using mall intercept method. Since the MNEs have been taken from food and beverages sector, it has been quite convenient to locate and intercept the staff at retail stores and malls. This facilitation helped in ensuring the random choice of sample elements while also avoiding because of leave, expatriate posting etc. of managers.



A number of factors have influenced the choice of MNEs in food and beverages sector in Pakistan as the context of study and basis of sampling frame in setting up methodology of this scientific enquiry. Firstly, most of MNEs with BoP supply chain linkages were operating in the food and beverages sector and thus fulfilling the required context of the study. Secondly, food and beverages sector is also strongly linked with BoP consumer market. According to UNCTAD (2015), food and beverages sector in developing economies largely caters to the basic needs of poor communities. The discussion of the report implies that it is important to take necessary measures to enhance the competitiveness and outreach of this sector to the poor BoP market in developing

economies. This characteristics of food and beverages sector are in line with the objectives of the study and therefore the study has focused on this sector. However, future studies may look into other sectors of host market as well to see whtether the dynamics of the proposed model of this study still hold.

Table 3.10
*List of MNEs operating in food and beverages sector in Pakistan*

| Foreign MNEs subsidiaries in food and beverages sector in Pakistan | | |
|---|---|---|
| • Pizza Hut | • Unilever Pakistan | • Pepsi Beverages Pakistan |
| • KFC | • Nestle Pakistan | • Murree Brewery |
| • McDonald | • Coca-Cola Beverages Pakistan | |
| | • Friesland | |



### 3.4.4 Sampling Method

The sampling methods are broadly classified into probabilistic and non-probabilistic methods (Bryman & Bell, 2015). Probability sampling entails that each element of population has equal or known probability to be chosen as sample element. On the contrary, non-probability sampling methods are based on contingency, judgment and convenience of researcher. The chances or probability of selection of a population element in the sample are unequal and thus may produce non-representative sample. Examples of use of non-probability sampling are mostly in the qualitative studies where sample size is small and generalizability is not essentially required. In studies following quantitative research design, external validity of results is an important issue which

makes probability sampling most suited to such studies. Present study is following quantitative explanatory research design and seeks to gather information from a sample of managers working in marketing/supply chain departments of MNEs subsidiaries operating in food and beverages sector of Pakistan and applying supply chain linkages with BoP enterprises.

The probability sampling ensures all the elements of target population have equal chances to get selected in the sample and thereby making it more representative of the population. This ensures that the distribution pattern of the sample is same as the distribution pattern of the population. In other words mean, standard deviation and variance of the characteristics in the sample are expected to be representative of the corresponding population parameters. The mostly used probability sampling methods include simple random sampling, systematic sampling, cluster sampling and stratified random sampling.



For the purpose of this study, random sampling method is chosen to draw sample of respondents. As table 3.10 points to the list of MNEs in food and beverages sector of Pakistan. The target population are staff in marketing/supply chain departments of those MNE subsidiaries which have significant backward and/or forward or other linkages with BoP firms. It made sense that sample respondents (marketing staff) were selected from those MNEs which have employed BoP supply chain linkages. The sample was selected randomly by which marketing staff of MNEs in food and beverages sector were randomly selected during their market visits in order to get the desired information from them using structured questionnaire. The screening questions were asked to identify if the contacted staff belongs to the target population of study.

### 3.4.5 Sample Size

Sekaran (2009) and Krenjcie & Morgan (1970) have simplified the sample size calculation by developing a table that describes appropriate sample sizes corresponding to various population sizes. The table 3.11 depicts that the sample size freezes at a maximum level when the population size exceeds from a certain limit i.e. 50,000. Appropriate sample size for the population size of 50,000 or higher is 381. Since the majority A study by Barlett & Kotrlik & Higgins (2001) has developed tables for sample size calculation to be used in organizational research.

This study specifies that appropriate sample for a population of 2000 is 112 with alpha=0.5 and margin of error = 0.03. This model increases the sample size to 119 even if population amounts to 4000. Since the middle and top level marketing staff working in marketing/supply chain departments of foreign headquartered MNEs in food and beverages sector in Pakistan are estimated be 4000, the sample size=119 seems acceptable to accommodate variation in the population size. Given the estimated response rate of 60%, about 200 questionnaires were distributed to the target sample elements to meet sample size requirement of 119.

Table 3.11
*Sample size for a given population size*

| N | S | N | S | N | S |
|---|---|---|---|---|---|
| 10 | 10 | 220 | 140 | 1200 | 291 |
| 15 | 14 | 230 | 144 | 1300 | 297 |
| 20 | 19 | 240 | 148 | 1400 | 302 |
| 25 | 24 | 250 | 152 | 1500 | 306 |
| 30 | 28 | 260 | 155 | 1600 | 310 |
| 35 | 32 | 270 | 159 | 1700 | 313 |
| 40 | 36 | 280 | 162 | 1800 | 317 |
| 45 | 40 | 290 | 165 | 1900 | 320 |
| 50 | 44 | 300 | 169 | 2000 | 322 |
| 55 | 48 | 320 | 175 | 2200 | 327 |
| 60 | 52 | 340 | 181 | 2400 | 331 |
| 65 | 56 | 360 | 186 | 2600 | 335 |
| 70 | 59 | 380 | 191 | 2800 | 338 |
| 75 | 63 | 400 | 196 | 3000 | 341 |
| 80 | 66 | 420 | 201 | 3500 | 346 |
| 85 | 70 | 440 | 205 | 4000 | 351 |
| 90 | 73 | 460 | 210 | 4500 | 354 |
| 95 | 76 | 480 | 214 | 5000 | 357 |
| 100 | 80 | 500 | 217 | 6000 | 361 |
| 110 | 86 | 550 | 226 | 7000 | 364 |
| 120 | 92 | 600 | 234 | 8000 | 367 |
| 130 | 97 | 650 | 242 | 9000 | 368 |
| 140 | 103 | 700 | 248 | 10000 | 370 |
| 150 | 108 | 750 | 254 | 15000 | 375 |
| 160 | 113 | 800 | 260 | 20000 | 377 |
| 170 | 118 | 850 | 265 | 30000 | 379 |
| 180 | 123 | 900 | 269 | 40000 | 380 |
| 190 | 127 | 950 | 274 | 50000 | 381 |
| 200 | 132 | 1000 | 278 | 75000 | 382 |
| 210 | 136 | 1100 | 285 | 1000000 | 384 |

Source: Krejcie & Morgan, (1970); Sekaran, (2003)



## 3.5 Measurement Model, Data Collection Instrument Design and Data Collection Methods

Siddiqui et al. (2016) has calculated validity and reliability of the measurement model that explains the latent constructs of propensity to internationalization, market knowledge competence, inclusive supply chain linkages and its variants, and inclusive innovation.

The multiple-indicator concept has been used in the designing of structured questionnaire which was administered through in person mall intercept survey. Purpose of using multiple indicators is to get reliable results on the latent variables that cannot be observed directly. A list of variables and their indicators is detailed out in table 3.9. Structured questionnaire is a quantitative data collection instrument that is administered on large sample to get standardized information from representative sample (Bryman and Bell, 2015). Objective was to validate the hypothesized research model and produce generalizable results.

This study gathered empirical data to validate the hypothesized role of sustainable BoP supply chain cluster on internationalization of MNEs. A multi-item structured questionnaire was developed to gather data on the causal relationships depicted in the list of hypotheses of study. Five-point likert scale was used to measure the indicators of research variables. The indicators have been selected based on their validity and reliability scores in the previous studies and on the basis of pilot study results.



### 3.5.1 Data Collection Protocol

The survey method of data collection has been utilized in this study. The survey method is further administered by mall intercept method. The data collection was initiated by seeking request letter from the graduate school and presenting it to HR department of MNEs in food and beverages sector of Pakistan with BoP supply chain linkages in the value chain network. The request letters from the researcher were sent to the targeted MNEs along with request letter from UUM. Purpose of research was properly disclosed and privacy of information provided and its academic use only was communicated to the

relevant authorities at these firms. This protocol was of disclosure of information and consent from respondents was further strengthened by presenting the data collection letter from UUM to each respondent along with the questionnaire.

The questionnaires were distributed to the managers through mall intercept method by contacting them at retail stores and shopping malls. Reminders were sent through phone calls. Personal referrals were also used to persuade the respondents to fill in the questionnaire. In order to compensate for the non-response rate, 65% more questionnaires were sent on top of the estimated sample size of 119.

### 3.5.2 Validity and Reliability of Items and Scales

After the construction of data collection instrument of the study, a structured questionnaire, there is need to evaluate the validity and reliability of measurement items used in the questionnaire to measure various latent variables. Validity is explained as to what extent the items or construct correctly measures a latent variable (Babbie, 2013). Sekaran (2009) reflects that the measurement items and scales used in a study to measure latent variable may be imperfect and thus may result in errors. It is therefore mandatory to measure the validity of the constructs used in the study. Present study uses a number of latent constructs such as propensity to internationalization, sustainable/inclusive supply chain linkages and sustainable/inclusive innovation in a BoP supply chain cluster.

The external validity which is also known as generalizability can be ensured well through appropriate sampling strategy. Whereas, the internal validity which refers to the

truthfulness of the measurement items, is ensured by assigning items which may best represent the latent variable. Thus the internal validity is also termed as task of establishing goodness of measures.

Present study utilizes a number of items to measure the latent constructs of inclusive supply chain linkages, and its variants backward, forward and horizontal linkages, inclusive innovation, market knowledge competence, and propensity to internationalization. The measurement validity and reliability of these latent variables was pilot tested before starting the actual field work. In this pilot testing phase, the exploratory factor analysis and other tests of reliability and validity were run in order to evaluate the validity and reliability of the items that may be made part of the proposed study model. Coupled with the expert opinion obtained from well experienced supply chain managers, the pilot testing has determined strength and weakness of the measurement items.



### 3.6 Results of Pilot Study

After obtaining the results from filling the questionnaire from the target respondents of the pilot study, PLS software has been used to evaluate the validity and reliability of the latent constructs and the hypothesized relationship as depicted by the proposed model of the study. Use of exploratory factor analysis (EFA) was made in order to identify the most valid and reliable items of each latent variable in the model. In this way, the pilot study served as the quality control mechanism of research design for assessing the reliability and validity of the measurement model and the data collection instrument.

According to Gay Mills & Airasian (2006), pilot study refers to a small scale study aimed at analysing the measurement model and data collection instrument. This must be done well before going for the full survey study. The usual sample size suggested for pilot studies ranges between 30-40 respondents and better results are to be expected when the sample size is increased. In order to conduct the pilot testing of present study, about 50 respondents i.e. supply chain managers working in MNEs subsidiaries in Pakistan were surveyed and their responses were analysed in order to measure validity and reliability of each of the measurement model and data collection instrument. In present study, the proposed model is comprised of reflective measures for all latent variables and their dimensions.

Therefore, the internal consistency of the measurement items for each latent construct has been measured by reliability coefficient, Cronbach's alpha, along with other statistical measures for the reliability. Jarvis, MacKenzie & Podsakoff (2003) reflect that these reliability tests are capable to screen measurement items which are consistent and measure the same latent vairable. The reliability coefficient scores also known as Cronbach's alpha were calculated for all measurement items. Thus, the pilot study made sure that the measurement model and the data collection instrument (structured questionnaire) to be used in the study to analyse proposed structural relationships is valid and reliable.



### 3.6.1 Reliability Test

Reliability tests evaluate the level of consistency among several measurement which measure a given construct (Hair et al., 2014). It implies that similar results would be

obtained if the measures are used repetitively. According to Sekaran (2009) and Davis (2000), the Cronbach's alpha coefficient score of an item shows its internal consistency. Higher the value of Cronbach's alpha, greater is the internal consistency and thus better is the ability of the measurement items to measure the construct it aims to measure. The Cronbach's alpha coefficient score have been presented in Table 3.12 for all latent variables and their constructs of the present study.

The score values of more than 0.6 for most of the items fulfil the criterion proposed by Hair et al. (2016), which states that the minimum acceptable limit for Cronbach alpha is 0.6. However, the construct of 'Subcontractor Linkages' has obtained low score of the Cronbach's alpha coefficient i.e. -0.150. It may be noted that this construct has also obtained low factor loading score which represent low validity of its measurement items. Given the low Cronbach's alpha score and low factor loading than the acceptable range, this construct was removed from the proposed model. To further ascertain, the experts were also interviewed who suggested that 'subcontractor linkages' is quite similar to horizontal supply chain linkages or linkages with other BoP firms and thus its removl is not expected to significantly influence the predictive capability of the proposed model.

The experts were of the opinion that it is quite difficult for the respondents to differentiate between 'supply chain linkages with other BoP firms' and 'supply chain linkages with BoP subcontractors' and suggested to delete one of those to make the construct more comprehensive. However, all other measurement items tested and made part of the measurement model and data collection instrument expressed appropriate level of

reliability i.e. internal consistency to correctly collectively measure their respective latent constructs.

### 3.6.2 Construct Validity

Churchill (1979) and Sekaran (2013), reflect that existence of mere an appropriate level of reliability score is not enough to render a goodness of measurement. There should be further evaluation of validity of the construct items. Validity of measurement items of a construct explains the extent to which the items measure what they aimed at measuring (Nunnally & Bernstein, 1994). Validity of measurement items is evaluated in terms of content validity and construct validity as frequently used measures. The content validity refers to a judgmental assessment of the measurement items, latent constructs, and the overall data collection instrument developed. This usually is ensured by citing literature review of studies that have previously utilized these items or have reflected upon their use based on study. Whereas, the construct validity can be evaluated by ascertaining that a measurement items is correctly measuring the construct it aimed to (Brown, 1996).



It is worthy to note that the overall validity of measurement model and instrument is best described by measurement of the construct validity. Factor analysis using PLS has been applied in this study to examine the construct validity. The factor analysis is aimed at screening the items which best explain the latent construct. Except for subcontractor linkages, the factor loading score of all constructs items have been found sufficiently higher and thus rendering the measurement model valid. The final proposed model and the data collection instrument has been constructed using the results from this pilot study.

Table 3.12
*Results of Pilot Test (Measures of Reliability and Validity)*

| Construct | No. of Items | Factor loading | Cronbach's Alpha | Average Variance Extracted | Items Deleted |
|---|---|---|---|---|---|
| Propensity to Internationalization | 6 | 0.850<br>0.612<br>0.783<br>0.710<br>0.813<br>0.750 | 0.849 | 0.573 | Nil |
| Market Knowledge Competence | 6 | 0.782<br>0.751<br>0.703<br>0.776<br>0.633<br>0.647 | 0.811 | 0.515 | Nil |
| Inclusive Supply Chain | 3 | 0.870<br>0.720<br>0.793 | 0.708 | 0.635 | Nil |

Table 3.12 (continued)

| | | | | | |
|---|---|---|---|---|---|
| Inclusive Innovation | 3 | 0.883<br>0.885<br>0.886 | 0.861 | 0.782 | Nil |
| Forward Linkages | 4 | 0.822<br>0.719<br>0.750<br>0.743 | 0.755 | 0.577 | Nil |
| Horizontal Linkages | 4 | 0.819<br>0.756<br>0.711<br>0.706 | 0.743 | 0.562 | Nil |
| Subcontractor Linkages | 4 | 0.110<br>0.885<br>-0.293<br>0.213 | -0.150 | 0.294 | Removed |
| Backward Linkages | 4 | 0.868<br>0.776<br>0.855<br>0.863 | 0.863 | 0.787 | Nil |

## 3.7 Conclusion

This chapter has described the research framework, hypotheses of study and the consequent quantitative explanatory research design. The conceptual and operational definitions of variables of the study are elaborated in detail. Sampling strategy and its various components such as sampling design, sampling frame, sampling methods and sample size are described. The choice of random probability sampling technique is justified given its compatibility with the quantitative research design selected earlier. Measurement of variables, questionnaire design and its validity issues are discussed to ensure maximum generalizability of results. The results of pilot study have been presented and incorporated in the data collection instrument and study framework. To sum up, details and procedures laid out in this chapter enabled the researcher to carry out the research study effectively and efficiently.

# CHAPTER FOUR

# RESULTS AND DISCUSSION

## 4.1 Introduction

This chapter deals with the analysis results pertaining to research objectives as stated in chapter one. It further seeks to present the results of hypotheses developed in chapter three. There are twelve main sections and eight sub-sections covered in this chapter beginning with introduction which is further followed by response rate in the second section and data screening in the third section dealing with data cleaning issues. The fourth section deals with profiles of respondents surveyed in this study. Section five summarizes and explains the prime characteristics of data under descriptive analysis. The next section elaborates and justifies the use of Partial Least Squares approach to structural equation modelling used in this study. Thereafter, section seven seeks to elucidate and evaluate the measurement model ensuring that the items and constructs were doing their job appropriately through various validity measures. The establishment of second order construct is presented in section eight. It is followed by estimation of effect size seeking to show model's strength through R2 values in section nine of this chapter. Thereafter, section ten is presented to highlight the predictive abilities of the model under study which is further followed by establishing the goodness of fit aspect of the model under section eleven. Section twelve presents the structural model and results of hypothesis testing presented in different sub sections separately for direct, mediating, and moderating relationships. These hypotheses results have been further summarized in section thirteen leading to carrying out a discussion for the same in the fourteenth section. And finally, section fifteen presents the chapter summary.

## 4.2 Response Rate

Response rate can be estimated by dividing the number of respondents who actually took the survey to the sample size determined for the study (Hamilton, 2009). The research design of this study had resorted to attempting to survey 200 managerial staff of MNE subsidiaries in food and beverages sector in Pakistan to meet the sample size of 119 with estimated response rate of 60%. Even though this sample size was set large enough to accommodate issues like measurement error, etc., still it was attempted to collect few more data than the target set in the rigorous and scientific sampling scheme decided for this study. As it was an organizational study, the employees were contacted directly by the researcher and the enumerators, and as such, resulted in achieving an actual response rate of about 78% (156). This met the sample size requirement well above the desired limit of 119, the sample size of the study, as there was much less probability of any rejection of data on the basis of number of returned or not returned questionnaires. However, it was experienced that data collection is the most difficult and tiring part of research process that needs patiently dealing with the respondents. Nevertheless, in all cases, the questionnaires were rechecked by the researcher after the managerial staff answered the questionnaire for any omission or unanswered responses. However, even after adequate caution, seven (07) questionnaires were found to be having some options unanswered while entering the data in SPSS and they were therefore rejected due to their unusable nature, and finally 149 usable questionnaires were considered for data analysis in this study.

Moreover, it is a well-known fact in statistics that a good sample must be proper representative of the population which makes the sample statistic appropriate for estimating population parameter under consideration. Keeping that in mind, this study followed a random sampling process as described in section 3.4 of this thesis. There can be bias found due to unrepresented samples or due to any kind of shortcoming in the measurement process which can include the way questions are asked or even the state of respondents taking the survey. The data was collected at retail stores, shopping malls and at office spaces of the companies directly and through referrals of respondent employees.

## 4.3 Data Screening

Prior to conducting analysis, this study relied on data screening mainly for treating missing values. SPSS 18.0 was utilized to screen the data and make it in the desirable format before sophisticated data analysis for measurement model analysis and structural model analysis. It was necessitated from the fact that in Structural Equation Modelling (SEM) analysis, the available tools and techniques cannot function if there is any missing data available in the data set (Schumacker & Lomax, 2004). Moreover, it should also be noted that the quality of data analysis largely depends on the suitability of data organization and its further conversion into a form appropriate for analysis (Kristensen & Eskildsen, 2010) and which is why data screening is deemed extremely useful for making sure that the data have been entered correctly. Missing data can arise in different situations like – respondents inability to understand questions, or difficulty in answering, or lack of willingness to answer (Sekaran & Bougie, 2010). Since the respondents were

largely educated, the issue of missing values was avoided. In many instances, the respondents asked for clarification of any question on phone or in person.

## 4.4 Respondents Profile

For a coherent discussion and rational explanation of the results and findings, it is pertinent to have a clear understanding of the respondent's profile which is presented in Table 4.1 in this study thesis. This study had finally considered responses of 149 respondents for data analysis. Out of these respondents, maximum were seen to possess educational qualification of up to masters (46.3%) and Bachelors (20.8%) and professionals (26.2). Less than 7% respondents in total were found to have only high school/diploma education (4.5%).

Table 4.1
*Respondent Profile*

| Personal Demography | Indicator | Frequency | Percentage |
|---|---|---|---|
| **Education Level** | High School | 10 | 6.7 |
| | Graduation | 31 | 20.8 |
| | Masters | 69 | 46.3 |
| | Professionals | 39 | 26.2 |
| **Total** | | 149 | 100 |
| **Experience** | Less than 5 years | 52 | 11.6 |
| | 5-10 years | 34 | 41.8 |
| | 10-15 years | 29 | 25.6 |
| | 15-20 years | 19 | 17.5 |
| | Above 20 years | 15 | 3.5 |
| **Total** | | 149 | 100 |
| **Trainings Attended** | None | 18 | 12 |
| | Upto 10 | 79 | 53 |
| | More than 10 | 52 | 35 |
| **Total** | | 149 | 100 |

As far as experience was concerned, the highest number of respondents (41.8%) was found to be in the range of 5-10 years. The second highest number of respondents

(25.6%) was in the range of 10-15 years followed by 17.5% in the range of 15-20 years and 11.6% in the range of less than 5 years of experience. Moreover, the respondents with highest no of trainings achieved (taken as _above 10) were about 35% of the total number of respondents followed by (up to 5) 53% and (less than 5) 12%.

## 4.5 Descriptive Analysis

A descriptive analysis was performed in this study primarily to summarize and explain the main features of the data set from the standpoint of survey respondents on every variable/dimensions considered in the study. It was conducted mainly due to the fact that the descriptive statistics of dimensions explained through mean, standard deviation, variance, etc. collectively seek to offer a researcher a general view regarding how the survey respondents have responded to the survey instrument used in the study (Sekaran & Bougie, 2010).



Table 4.2
*Descriptive Statistics*

| Construct | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| **Backward Linkages** | 149 | 1.25 | 4.50 | 3.189 | 0.847 |
| **Forward Linkages** | 149 | 1.25 | 4.75 | 3.370 | 0.768 |
| **Horizontal Linkages** | 149 | 1.75 | 4.00 | 2.842 | 0.603 |
| **Inclusive Innovation** | 149 | 1.00 | 5.00 | 3.102 | 0.987 |
| **Market Knowledge** | 149 | 1.67 | 4.83 | 3.494 | 0.828 |
| **Internationalization** | 149 | 1.50 | 4.83 | 3.447 | 0.752 |
| **Inclusive Supply Chain** | 149 | 1.67 | 4.67 | 3.572 | 0.747 |

The results of descriptive statistics presented in Table 4.2 show that all variables and their dimensions possessed a mean ranging from 3.572 to 2.842 which were all above the average value. The standard deviation of all dimensions ranged from 0.603 to 0.847 which is also considered acceptable. As such, it can be established that on the basis of responses i.e. perceptions of respondents collected in this study explicitly reflect to an acceptable and satisfactory level of MNE subsidiary engagement with BoP supply chain network such as inclusive supply chain, inclusive innovation, backward linkages, forward linkages, horizontal linkages and the associated dependent variables such as market knowledge competence and MNE subsidiary's internationalization.

## 4.6 Partial Least Square – Structural Equation Modeling (PLS-SEM)

Application of structural equation modelling (SEM) in this study has been explained previously in section 4.9.1. This study resorted to using SEM for testing hypothesis which evolved from the proposed theoretical framework. The two mostly used approaches to SEM have been: covariance based (AMOS, LISREL) and variance based (Partial Least Squares), wherein one approach is not actually perceived superior to another by the researchers. Instead, depending upon the study objectives and nature of data, they offer a researcher alternative and relevant options to choose from. The prime difference between the two is that CB-SEM has been mainly considered as confirmatory (towards testing a strong theory) in nature whereas PLS-VB-SEM has been considered as prediction oriented (facilitating theory development).

Though CB-SEM has been traditionally a popular approach, nowadays researchers tend to appreciate VB-SEM because of its advantages pertaining to absence of factor indeterminancy or convergence issues (Henseler, 2010); comparatively simpler distributional assumptions (Reinartz, Haenlein, & Henseler, 2009); when the focus is on theory development or prediction; ability to estimate models which have got more variables than the observations (Dijkstra & Henseler, 2012). There have been several studies describing the development and importance of PLS-VB-SEM's methodological aspects, for example: Chin (1998), Ringle, Sarstedt, and Straub (2012), Tenenhaus, Vinzi, Chatelin, and Lauro (2005), and Wold (1982), etc.

This study contained of a not much complex model consisting of two independent and one dependent variable, one mediating variable, and also few demographic factors acting as covariates or control variables. However the number of sample size was much less (149) compared to traditional consumer surveys with sample size ranging 250-400. This induced to resort to using Smart PLS 3.2.2 software developed by Ringle et al. (2005) for the SEM to statistically explain the relationships among the dimensions of independent variables and the dependent variable, along with the mediating variable. Highly complex models with several latent and manifest variables can be estimated by PLS which is also said to be capable of easily estimating hierarchical models, or moderating and mediating effects (Chin, Marcolin, & Newsted, 2003). The complexity inside a model can be calculated after considering a causality relationship among the model's latent concepts, termed as latent variables, each estimated by the means of various observed indicators which are called as manifest variables (Vinzi, Trinchera, & Amato, 2010). As it was also pointed out by Wold (1985), that PLS is quite useful among larger models wherein the

prominence shifts from individual variables and parameters to sets of variables and aggregate parameters. Moreover, the focus of this study was on making prediction which also gave rise to the need of using PLS. Also, PLS is said to be free of any assumption in terms of sample size, normality, multicollinearity, etc. Alternatively speaking, as a major advantage, PLS relies on making minimal distributional assumptions, and as such, tests for normality, for instance skewness, kurtosis, Kolmogorov-Smirnov test, etc. are not needed to be done while using Smart PLS (Hossain, 2013). And in line with it, one of the reasons to select PLS SEM was to estimate the model of this study without letting it imposed by any kind of limiting constraints which might be a case in covariance based structural equation modelling. As such, data analysis in this study was done using Smart PLS software meant to perform PLS path modelling. It is also in line with Ringle et al. (2012) who pointed out that PLS-SEM can facilitate in enhancing the already existing good reporting practices in disciplines like marketing and strategic management. Moreover, SEM is said to be a unification of two dominant approaches— factor analysis and path analysis, which seeks to enable the researchers in examining concurrently the two important facets of a model which are, 1.measurement model (conventionally estimated through factor analysis) , and 2.structural model (conventionally estimated through path analysis) (Lee, Peter, Fayard, & Robinson, 2011). In this study, the data analysis was carried out through PLS path modelling performed for the two parts: firstly, for the measurement model which is called as outer model in PLS; and secondly for the structural model which is termed as inner model in PLS. The relationship between latent or unobserved variables was explained in the inner model, whereas the link between a latent variable and its manifest variables was described in the outer model. Furthermore, operation-wise, PLS algorithm sought to produce loadings between the reflective

constructs and their respective indicators as this study consisted of all reflective constructs only. In overall terms, similar to regression, PLS always attempted to stress on maximizing the variance of the dependent variables of the study explained through the independent variables (Chin, 1998). For a detailed explanation, the results of the PLS modeling are explained in subsequent sections.

## 4.7 Measurement Model Evaluation

Using Smart PLS, in the first step, the measurement model (outer model) was examined to ascertain the appropriateness of loadings of the indicators (items) on the theoretically devised respective constructs. Outer model is evaluated in order to affirm that items measure the construct they were supposed to measure, consequently ascertaining that the instrument used is reliable. Moreover, the purpose of outer model is to diagnose the relationship between observable and underlying constructs. As such, it becomes important to trace appropriate indicators for ensuring a proper operationalization of a particular construct (Churchill, 1979) which further necessitates estimation of construct validity which can be justified in SEM through content validity, convergent validity, and discriminant validity (Hair et al., 2014).

### 4.7.1 Content Validity

Content validity signifies the appropriateness and ability of items generated for a construct in measuring the main concept under study (Hair et al., 2014). Moreover, Bohrnstedt (1970) and Vinzi, Lauro, and Tenenhaus (2003) suggest using Principal

Component Analysis (PCA) method for assessing the indicators' underlying factor structure. Smart PLS is based on PCA method as such, the factor loadings were created for all indicators in Smart PLS. It is a basic requirement that all indicators must exhibit highest loading values on their respective constructs than that on other constructs. Theoretically it was already ensured through a comprehensive literature review that indicators belong to their respective constructs. However, to support it statistically, factor analysis was performed which is shown in Table 4.3. It can be seen in Table 4.3 that the loadings of indicators are highest on their respective constructs as compared to their loadings on other constructs, and they consist of significantly and acceptably high loadings. These two lead to confirmation of content validity. Table 4.3 seeks to show the loadings of all items pertaining to each of the constructs taken in this study which includes: product fairness, marketing communications, price fairness, channels of distribution, consumer attitude, perceived behavioral control, subjective norms, behavioral intention, actual behavior, and lifestyle (self-confidence, family orientation, health consciousness, women's role and perception, religiosity). In line with Chan (2003), the item loading can be termed as poor if is less than 0.30, fair if it is in range of 0.31 to 0.50, moderate if it is between 0.51 to 0.60, moderately strong if it is in range of 0.61 to 0.80, and very strong if it is between 0.81 to 1 (Krause, Gathmann, & Gorschewsky, 2008). It was further supported that the item loading should be over 0.30 for the mutual relationships (Andresen, 2000). It can be seen in Table 4.3 that each of the loadings is greater than 0.59 which shows either moderately or very strong loading for each of the indicators taken in the study. A total of 04 indicators (SL1, SL2, SL3, SL4) were deleted which consisted of poor loadings as per aforesaid criteria and poor reliability score of chronbach alpha.

Table 4.3
*Cross Loadings of the Items*

| | | BL | FL | HL | II | IS | ITZ | MKC |
|---|---|---|---|---|---|---|---|---|
| Backward Linkages | BL1 | 0.888 | 0.226 | 0.144 | 0.011 | 0.248 | 0.178 | 0.086 |
| | BL2 | 0.781 | 0.139 | 0.176 | 0.038 | 0.199 | 0.096 | 0.106 |
| | BL3 | 0.827 | 0.212 | 0.084 | 0.014 | 0.222 | 0.169 | 0.087 |
| | BL4 | 0.805 | 0.240 | 0.093 | -0.086 | 0.172 | 0.165 | 0.157 |
| Forward Linkages | FL1 | 0.202 | 0.854 | 0.308 | 0.194 | 0.693 | 0.599 | 0.473 |
| | FL2 | 0.240 | 0.770 | 0.297 | 0.056 | 0.492 | 0.308 | 0.245 |
| | FL3 | 0.186 | 0.813 | 0.301 | 0.078 | 0.524 | 0.371 | 0.373 |
| | FL4 | 0.184 | 0.828 | 0.216 | 0.149 | 0.540 | 0.405 | 0.356 |
| Horizontal Linkages | HL1 | 0.117 | 0.276 | 0.839 | -0.027 | 0.385 | 0.107 | 0.060 |
| | HL2 | 0.102 | 0.320 | 0.789 | -0.067 | 0.357 | 0.134 | 0.138 |
| | HL3 | 0.220 | 0.214 | 0.671 | -0.001 | 0.222 | -0.002 | -0.025 |
| | HL4 | 0.006 | 0.160 | 0.591 | -0.047 | 0.202 | 0.039 | 0.025 |
| Inclusive Innovation | II1 | 0.018 | 0.038 | -0.151 | 0.769 | 0.173 | 0.279 | 0.238 |
| | II2 | -0.039 | 0.124 | 0.016 | 0.828 | 0.245 | 0.317 | 0.272 |
| | II3 | 0.020 | 0.208 | 0.001 | 0.843 | 0.221 | 0.263 | 0.292 |
| Inclusive Supply Chain | IS1 | 0.232 | 0.608 | 0.324 | 0.308 | 0.864 | 0.588 | 0.451 |
| | IS2 | 0.304 | 0.567 | 0.370 | 0.118 | 0.813 | 0.519 | 0.374 |
| | IS3 | 0.090 | 0.546 | 0.344 | 0.216 | 0.788 | 0.466 | 0.354 |

Table 4.3 (continued)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Internationalization | ITZ1 | 0.237 | 0.517 | 0.155 | 0.260 | 0.583 | 0.849 | 0.681 |
| | ITZ2 | 0.165 | 0.398 | 0.105 | 0.287 | 0.465 | 0.712 | 0.459 |
| | ITZ3 | 0.061 | 0.302 | 0.018 | 0.248 | 0.427 | 0.725 | 0.430 |
| | ITZ4 | 0.099 | 0.347 | 0.085 | 0.169 | 0.412 | 0.640 | 0.392 |
| | ITZ5 | 0.149 | 0.439 | 0.116 | 0.365 | 0.577 | 0.844 | 0.607 |
| | ITZ6 | 0.068 | 0.460 | 0.008 | 0.409 | 0.395 | 0.766 | 0.581 |
| Market Knowledge | MK1 | 0.209 | 0.401 | 0.178 | 0.560 | 0.429 | 0.625 | 0.787 |
| | MK2 | 0.172 | 0.298 | 0.060 | 0.544 | 0.305 | 0.533 | 0.798 |
| | MK3 | 0.074 | 0.432 | 0.075 | 0.500 | 0.442 | 0.629 | 0.775 |
| | MK4 | 0.066 | 0.426 | 0.061 | 0.506 | 0.354 | 0.629 | 0.784 |
| | MK5 | 0.167 | 0.346 | 0.136 | 0.443 | 0.359 | 0.599 | 0.762 |
| | MK6 | 0.102 | 0.286 | -0.057 | 0.346 | 0.260 | 0.598 | 0.721 |



Thereafter, Table 4.4 is presented below to show that each indicator load significantly on their respective constructs at 0.01 level of significance, which further indicates that validity is assumed through the factor analysis. These results finally led to considering that both content validity and the overall measurement of model is preserved.

Table 4.4
*Factor Loading's Significance*

| Variable | Item | Loadings | Standard Error | T Values | P Values |
|---|---|---|---|---|---|
| Backward Linkages | BL1 | 0.888 | 0.044 | 20.194 | 0.000 |
| | BL2 | 0.781 | 0.062 | 12.638 | 0.000 |
| | BL3 | 0.827 | 0.057 | 14.403 | 0.000 |
| | BL4 | 0.805 | 0.071 | 11.302 | 0.000 |
| Forward Linkages | FL1 | 0.854 | 0.018 | 46.618 | 0.000 |
| | FL2 | 0.770 | 0.036 | 21.330 | 0.000 |
| | FL3 | 0.813 | 0.033 | 24.965 | 0.000 |
| | FL4 | 0.828 | 0.030 | 27.915 | 0.000 |
| Horizontal Linkages | HL1 | 0.839 | 0.030 | 27.964 | 0.000 |
| | HL2 | 0.789 | 0.041 | 19.425 | 0.000 |
| | HL3 | 0.671 | 0.067 | 10.015 | 0.000 |
| | HL4 | 0.591 | 0.100 | 5.922 | 0.000 |
| Inclusive Innovation | II1 | 0.769 | 0.060 | 12.900 | 0.000 |
| | II2 | 0.828 | 0.040 | 20.955 | 0.000 |
| | II3 | 0.843 | 0.039 | 21.471 | 0.000 |
| Inclusive Supply Chain | IS1 | 0.864 | 0.021 | 41.779 | 0.000 |
| | IS2 | 0.813 | 0.029 | 28.368 | 0.000 |
| | IS3 | 0.788 | 0.038 | 20.616 | 0.000 |
| Internationalization | ITZ1 | 0.849 | 0.022 | 38.050 | 0.000 |
| | ITZ2 | 0.712 | 0.048 | 14.891 | 0.000 |
| | ITZ3 | 0.725 | 0.046 | 15.630 | 0.000 |
| | ITZ4 | 0.640 | 0.061 | 10.428 | 0.000 |
| | ITZ5 | 0.844 | 0.023 | 37.178 | 0.000 |
| | ITZ6 | 0.774 | 0.031 | 24.818 | 0.000 |
| Market Knowledge | MK1 | 0.791 | 0.028 | 28.131 | 0.000 |
| | MK2 | 0.816 | 0.027 | 29.684 | 0.000 |
| | MK3 | 0.805 | 0.025 | 31.824 | 0.000 |
| | MK4 | 0.785 | 0.030 | 26.001 | 0.000 |
| | MK5 | 0.792 | 0.029 | 27.439 | 0.000 |
| | MK6 | 0.718 | 0.041 | 17.411 | 0.000 |

### 4.7.2 Convergent Validity

In an attempt to ensure convergent validity, researchers try to show that the constructs' measures which should theoretically be related to each other are actually found related in such manner after the analysis. The three types of estimations viz. factor loadings,

composite reliability (CR), and average variance extracted (AVE) have been suggested to establish convergent validity (Hair et al., 2014).

Firstly, all of the item loadings are examined and a loading value of 0.50 or more is suggested as acceptable in the literature of multivariate analysis (Fornell & Larcker, 1981; Hair et al., 2013). It can be seen in Table 4.6 that all items consisted of a loading higher than 0.50. Secondly, the composite reliability was examined which shows the degree to which the items consistently seek to indicate the latent construct (Hair et al., 2013). The suggested ideal value for CR has been 0.70 (Fornell & Larcker, 1981; Hair et al., 2014) and it can be seen in Table 4.5 that the CR values for all constructs were in the range of 0.817 to 0.906 which is well above the prescribed values. Thirdly, average variance extracted (AVE), which is extent of common variance among the study's latent construct indicators (Hair, Anderson, Tatham, & Black, 1998) was examined whose value should be ideally more than 0.50 (Fornell & Larcker, 1981; Hair et al., 2016). As it can be seen in Table 4.6, this condition was also fully met wherein the AVE values ranged between 0.532 and 0.682. As such, the results indicated that there exists convergent validity.

Table 4.5
*Convergent Validity Analysis*

| Variable | Item | Loadings | Cronbach's Alpha | Composite Reliability | AVE |
|---|---|---|---|---|---|
| Backward Linkages | BL1 | 0.888 | 0.845 | 0.896 | 0.682 |
| | BL2 | 0.781 | | | |
| | BL3 | 0.827 | | | |
| | BL4 | 0.805 | | | |
| Forward Linkages | FL1 | 0.854 | 0.835 | 0.889 | 0.668 |
| | FL2 | 0.770 | | | |
| | FL3 | 0.813 | | | |
| | FL4 | 0.828 | | | |
| Horizontal Linkages | H1 | 0.839 | 0.710 | 0.817 | 0.532 |
| | HL2 | 0.789 | | | |
| | HL3 | 0.671 | | | |
| | HL4 | 0.591 | | | |
| Inclusive Innovation | II1 | 0.769 | 0.745 | 0.855 | 0.663 |
| | II2 | 0.828 | | | |
| | II3 | 0.843 | | | |
| Inclusive Supply Chain | IS1 | 0.864 | 0.760 | 0.862 | 0.676 |
| | IS2 | 0.813 | | | |
| | IS3 | 0.788 | | | |
| Internationalization | ITZ1 | 0.849 | 0.853 | 0.891 | 0.579 |
| | ITZ2 | 0.712 | | | |
| | ITZ3 | 0.725 | | | |
| | ITZ4 | 0.640 | | | |
| | ITZ5 | 0.844 | | | |
| | ITZ6 | 0.774 | | | |
| Market Knowledge | MK1 | 0.791 | 0.875 | 0.906 | 0.616 |
| | MK2 | 0.816 | | | |
| | MK3 | 0.805 | | | |
| | MK4 | 0.785 | | | |
| | MK5 | 0.792 | | | |
| | MK6 | 0.718 | | | |



### 4.7.3 Discriminant Validity

Discriminant validity is aimed at confirming the construct validity of the outer model which seeks to ensure that the measures which shouldn't be related, are actually not found related after conducting the analysis. It further means that each measures are more related

to their own respective constructs than to other constructs. For that, the square roots of average variance extracted (AVE) is examined with correlations among the constructs of the study in line with suggestions made by Chin (2010), and Fornell and Larcker (1981).

Table 4.6
*Discriminant Validity Analysis*

| Construct | BL | FL | HL | II | IS | ITZ | MKC |
|---|---|---|---|---|---|---|---|
| Backward Linkages | **0.826** | | | | | | |
| Forward Linkages | 0.247 | **0.817** | | | | | |
| Horizontal Linkages | 0.151 | 0.344 | **0.729** | | | | |
| Inclusive Innovation | -0.002 | 0.154 | -0.050 | **0.814** | | | |
| Inclusive Supply Chain | 0.258 | 0.699 | 0.419 | 0.263 | **0.822** | | |
| Internationalization | 0.185 | 0.531 | 0.111 | 0.353 | 0.640 | **0.761** | |
| Market Knowledge | 0.127 | 0.454 | 0.082 | 0.329 | 0.481 | 0.708 | **0.785** |

Actually it is expected that 50% or more variance of indicators are accounted for, which means that the square root of AVE should be more than 0.50. In this study, Table 4.6 shows that the diagonal values (square root of AVE of the respective constructs) are higher than the other values of the column and the row in which they are situated, confirming the discriminant validity of the outer model. As such, in overall terms, the construct validity of the outer model was established, and it was further presumed that the subsequent results of hypothesis testing would be valid and reliable mainly because of the fact that the valid constructs offer conclusions which lead to generalisation of thesis' results. To conclude, construct validity was established in this study by confirming content validity, convergent validity, and discriminant validity.

### 4.7.4 Predictive Relevance of the Model

While conducting analysis using PLS SEM, researchers have been suggested to rely on measures demonstrating the model's predictive abilities in order to evaluate the model's

quality (Hair et al., 2014). A model's predictive quality can be assessed (Fornell & Cha, 1994; Hair, Sarstedt, Ringle, & Mena, 2012) by cross-validated redundancy measure which is denoted as Q2 , a commonly found sample re-use technique (Geisser, 1974; Stone, 1974). Furthermore, in order for the model to have predictive validity according to Fornell and Cha (1994), the redundant communality should be bigger than zero for all endogenous variables which was also found to exist in this study (Table 4.7). In absence of that, a model is said to contain no predictive relevance. In Smart PLS software, predictive relevance of a model can be estimated by using blindfolding technique. This technique is tailored to estimate the parameters by excluding some of the data and by handling them as missing values (Fararah & Al-Swidi, 2013). Thereafter, the estimated parameters are processed to rebuild the raw data which were assumed previously as missing and consequently, the blindfolding technique creates general cross-validating metrics (Q2) (Chin, 1998). Chin (2010) pointed out that there can be diverse forms of Q2 depending upon the form of desired prediction. When the underlying latent variable score cases are used for predicting data points, a cross-validated communality is achieved, whereas, a cross-validated redundancy is obtained when the latent variables which predict the block in question are used for predicting the data points (Chin, 1998; Duarte & Raposo, 2010; Wold, 1982).

Table 4.7
*Predictive Quality Indicators of the Model*

| Construct | R2 | Cross Validated Communality | Cross Validated Redundancy |
|---|---|---|---|
| **Internationalization** | 0.625 | 0.407 | 0.327 |
| **Market Knowledge** | 0.275 | 0.450 | 0.152 |
| **Inclusive Supply Chain** | 0.530 | 0.350 | 0.329 |

Table 4.7 shows the results pertaining to prediction quality of the model under study. It shows that the cross-validated redundancies for the endogenous variables are 0.327, 0.152, and 0.329. These values reflect adequate predictive capabilities of the model based on Fornell and Cha (1994) criteria which necessitated these values to be larger than zero.

## 4.8 Structural Model

After the goodness of fit of the outer model was established in the previous step, the next step included inspecting the standardized path coefficients for the purpose of testing hypothesized relationships considered in the study. Moreover, as mentioned previously, the Smart PLS 3.2.2 software was used to test the hypothesized model.

Conventional t-tests are not calculated in PLS SEM as a part of PLS algorithm for ascertaining the statistical significance of the loadings and that of the path coefficients as the underlying data is not assumed to be essentially normal (Barclay et al., 1995). For such situations, Chin (1998), and Tenenhaus et al. (2005) supported the use of nonparametric resampling procedures like bootstrapping or jackknifing for inspecting the accuracy of the estimates and for generating significance tests results. As such, this study relied on using bootstrapping technique which is embedded in Smart PLS software for reaching to a conclusion that whether the path coefficients are significant or not from statistical point of view.

### 4.8.1 Path Coefficients for Direct Hypothesis

Firstly, PLS algorithm was run in order to generate the path coefficients which are shown in Figure 4.1, and secondly, bootstrapping with 5000 bootstrap samples which is bigger than the actual sample size of this study, thus meeting the condition suggested by Hair et al. (2013), and as used in the doctoral thesis by Hashim (2012), and Wilson (2011), as used by Henseler (2012), Lorenzo-Romero, Alarcón-del-Amo, and Constantinides (2014), and Lowry and Gaskin (2014). It was run in order to generate the t-values which are shown in Figure 4.2. The purpose of running the model with all variables was to ascertain the results of direct relationships (independent and dependent variable relationship) emanating from the research objectives of this study.

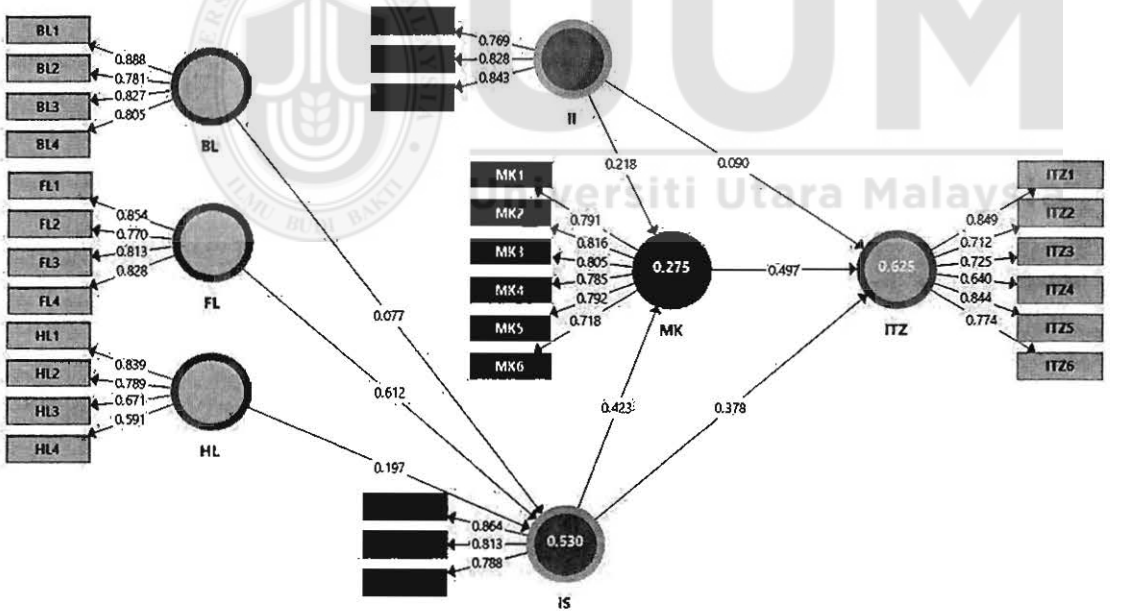


Figure 4.1
*Path Model Results*

The path model results yielding β-values as shown in Figure 4.1, and the path model significance results yielding t-values as shown in Figure 4.2 generated from bootstrapping

technique further led to calculating p-values for all direct relationships (H1-H5) which finally became a basis for reaching to the conclusion about whether a hypothesis is supported or not.

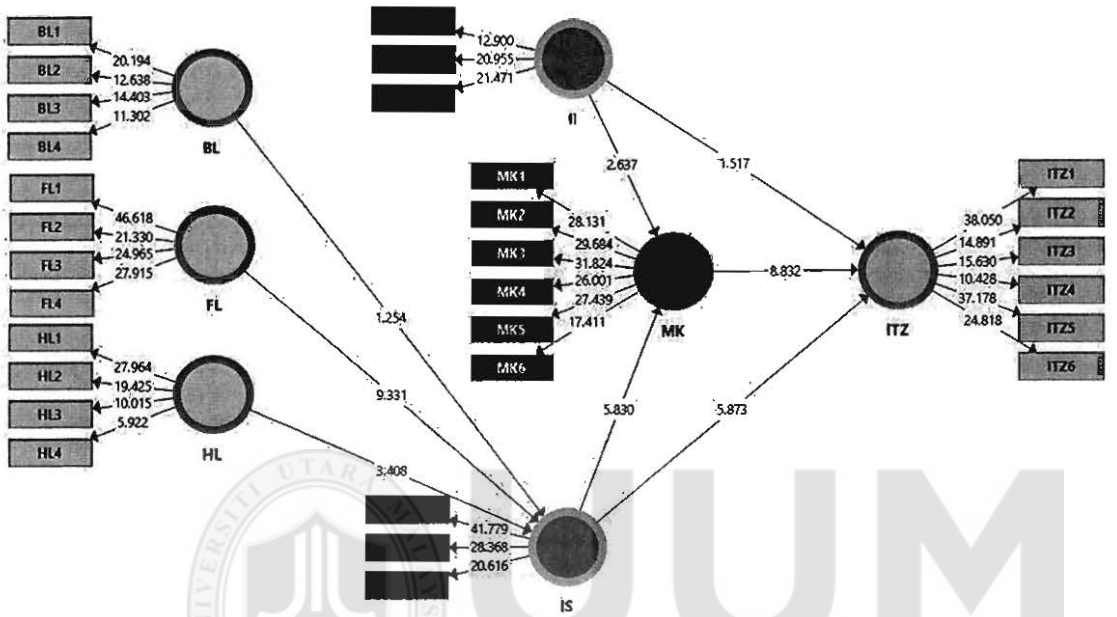


Figure 4.2
*Path Model Significance Results*

Table 4.10 shows the final results of the structural model (inner model). As it can be seen in Table 4.10, hypothesis H1 stating a significant positive relationship between inclusive supply chain and internationalization is supported at 0.01 level of significance ($\beta$=0.378, t=5.873, p<0.01). Thereafter, second hypothesis H1a, was seen as insignificant ($\beta$=0.077, t=1.254), however, H1b and H1c was seen to be supported indicating a significant positive relationship between horizontal linkages and inclusive supply chain ($\beta$=0.612, t=9.331, p<0.01) and ($\beta$=0.197, t=3.408, p<0.01) respectively. Furthermore, hypotheses H2 and H3 were found to be accepted wherein inclusive supply chain ($\beta$=0.423, t=5.830, p<0.01) and market knowledge ($\beta$=0.497, t=8.832, p<0.01) respectively possessed a

positive relationship with market knowledge and internationalization respectively. Thereafter, inclusive innovation was seen to have positively impact on market knowledge H4 ($\beta$=0.218, t=2.637, p<0.01), and inclusive innovation with internationalization not supported H5 ($\beta$=0.090, t=1.517).

Table 4.8
*Inner Model Results*

| Hypothesis | Hypothesized Effect | Path Coefficient | Standard Error | T-Value | P-Value | Decision |
|---|---|---|---|---|---|---|
| **H1** | Inclusive Supply Chain->Internationalization | 0.378 | 0.058 | 5.873 | 0.000*** | Supported |
| **H1a** | Backward Linkages-> Inclusive Supply Chain | 0.077 | 0.061 | 1.254 | 0.210 | Not Supported |
| **H1b** | Forward Linkages -> Inclusive Supply Chain | 0.612 | 0.066 | 9.331 | 0.000*** | Supported |
| **H1c** | Horizontal Linkages -> Inclusive Supply Chain | 0.197 | 0.058 | 3.408 | 0.001*** | Supported |
| **H2** | Inclusive Supply Chain -> Market Knowledge | 0.423 | 0.073 | 5.830 | 0.000*** | Supported |
| **H3** | Market Knowledge -> Internationalization | 0.497 | 0.056 | 8.832 | 0.000*** | Supported |
| **H4** | Inclusive Innovation -> Market Knowledge | 0.218 | 0.083 | 2.637 | 0.008*** | Supported |
| **H5** | Inclusive Innovation ->Internationalization | 0.090 | 0.059 | 1.517 | 0.129 | Not Supported |

***P<0.01, **P<0.05, *P<0.1

### 4.8.2 Testing Mediating Effects

In this study, marketing knowledge competence (MK) is taken as a mediator, which acts as a mediator in the relationship between inclusive innovation (II) and propensity to internationalization (ITZ); and between inclusive supply chain linkages (IS) and propensity to internationalization (ITZ). Following the four conditions described by Baron and Kenny (1986), MK has been confirmed as a mediator in this study. Next is the detail of relevance of each condition with this study.

1. **The significant relationship between independent variable and dependent variable**

In this study, II and IS are independent variables (exogenous construct) and ITZ is dependent variable (endogenous construct). In Table 4.8, the path coefficient between IS and ITZ is high, which shows their significant relationship, whereas, the path coefficient between IS and ITZ is low, which shows their insignificant relationship.

2. **The significant relationship between independent variable and mediator variable**

In this study, II is an independent variable (exogenous construct) and MK is a mediator variable (endogenous construct). In Table 4.8, the path coefficient between them is significant, which shows a significant relationship between II and MK.

Also the path coefficient between the other independent variable IS and mediating variable MK is significant, which shows a significant relationship

3. **The significant relationship between mediator variable and dependent variable**

In this study, MK is a mediator variable (exogenous construct) and ITZ is a dependent variable (endogenous construct). In Table 4.8, the path coefficient between them is also significant, which shows a significant relationship between MK and ITZ in the further discussion.

4. **The significant relationship between independent variable and dependent variable must be insignificant or near to zero after inclusion of mediator in the model**

In this study, it is evident from Figure 4.3 and Table 4.9 that after inclusion of MK as a mediator, the significant path between II and ITZ and IS and ITZ remains significant (t-value > 0.05 level).

### 4.8.3 Measurement of Mediation

According to the Baron and Kenny (1986) requirements of mediation, the data analysis confirms that MK fully mediates the relationship between IS and ITZ yet only partially mediates the relationship between II and ITZ. There is another method of measuring mediation to determine how much portion of the overall effect is mediated, i.e. indirect effect divided by the total effect. It means that when MK is included in the model as a mediator, then some of the total effect is shifted from IS and II to ITZ through IS and II to MK and then MK to ITZ. This indirect link between IS and II to ITZ is called the indirect effect. The link between IS to ITZ and II to ITZ is called direct effect. Measurement of mediation is the amount of indirect effect (path IS>MK x path MK>ITZ and path II>MK x path MK>ITZ). There are three methods to test the indirect effect. The first method is the joint significance of the Path "IS>MK" and the path "MK>ITZ" and of the path "II>MK" and the path "MK>ITZ". Fritz et al. (2012) recommended this test to use in conjunction with other tests. This test suggests that if the indirect effect (path IS>MK x path MK>ITZ and path II>MK x path MK>ITZ) is significant then both paths "path IS>MK" and "path MK>ITZ" and "path II>MK" and "path MK>ITZ" must be separately significant. As the Table 4.9 shows the separate significance of path "IS>MK " and path "MK>ITZ" and of path "II>MK" and path "MK>ITZ", the significance of indirect effect is shown in Table 4.9 to show that direct effect is mediated through indirect effect.

Table 4.9
*Results of Mediating Hypothesis*

| Relationship | Path coefficient | T value | P value |
|---|---|---|---|
| II -> MKC | 0.218 | 2.627*** | 0.009 |
| MKC -> ITZ | 0.497 | 8.611*** | 0.000 |
| II->MKC->ITZ | 0.108 | 2.378** | 0.017 |
| IS -> MKC | 0.423 | 5.774*** | 0.000 |
| MKC -> ITZ | 0.497 | 8.611*** | 0.000 |
| IS->MKC->ITZ | 0.210 | 4.810*** | 0.000 |

***P<0.01, **P<0.05, *P<0.1

The second method is the Sobel test (1982) which calculates whether the indirect effect of independent variable on dependent variable through a mediator is significantly different from zero or not. The Table 4.10 shows the results of the Sobel test by using the following website, http://quantpsy.org/sobel/sobel.htm. The result of Sobel test at 1% level of significance confirms that MK carries the influence of II and IS to ITZ substantially.



Table 4.10
*Sobel test of measuring mediation*

| PATH | TEST STATISTICS | STANDARD ERROR | P VALUE |
|---|---|---|---|
| **II->MKC->ITZ** | 2.52 | 0.043 | 0.012 |
| **IS->MKC->ITZ** | 4.80 | 0.044 | 0.000 |

The third method is the bootstrapping approach and, for PLS-SEM, Hair et al. (2014) recommended that measurement of mediation should follow the bootstrapping approach (Preacher and Hayes, 2004) of sampling distribution for simple and multiple mediators. The statistical power of Sobel test is very low when it compares with the bootstrapping

approach. Bootstrapping is a nonparametric technique, which is built on resampling with replacement completed many times (in this study, it is done for 5000 samples). Out of each sample, the indirect effect is calculated and a sampling distribution is empirically produced (Shrout & Bolger, 2002).

The first step is the same as that is explained in Baron and Kenny (1986) approach. The significance of the relationship between II and ITZ and IS and ITZ is tested and found significant for first and insignificant for later (Table 4.9). The next step is to calculate the indirect effect (path II>MK x path MK>ITZ) and (path IS>MK x path MK>ITZ) and its significance (Hair et al., 2014; MacKinnon et al., 2002). Table 4.11 shows the significance of the indirect effect. The last step is to find out the portion of total effect that is absorbed by the indirect effect (Hair et al., 2014). This is calculated with the help of variance accounted for (VAF). Its formula is:

VAF1 = indirect effect / total effect = path IS>MK x path MK>ITZ / (path IS>MK x path MK>ITZ + path IS>ITZ)

VAF2 = indirect effect / total effect = path II>MK x path MK>ITZ / (path II>MK x path MK>ITZ + path II>ITZ)

This is the key step in measuring the mediating effect because this step explains the portion of the variance in the dependent variable explained by the independent variable through the mediator (Hair et al., 2014). The criteria for deciding mediating effect is that if VAF is less than 20%, then no mediation takes place, if VAF is between 20% and 80%,

then partial mediation takes place and if VAF is greater than 80%, then full mediation exists. Table 4.11 shows all the calculations by using a bootstrapping approach.

Table 4.11
*Measurement of mediation through bootstrap*

| **Path Coefficient II->ITZ** | **Path Coefficient II->MKC** | **Path Coefficient MKC->ITZ** | **Indirect Effect** | **Total Effect** | **VAF** | **Result** |
|---|---|---|---|---|---|---|
| 0.090 | **0.218** | **0.497** | **0.108** | **0.198** | **0.55** | **Partial Mediation** |
| **Path Coefficient IS->ITZ** | Path Coefficient IS->MKC | Path Coefficient MKC->ITZ | Indirect Effect | Total Effect | VAF | Result |
| 0.378 | **0.423** | **0.497** | **0.210** | **0.588** | **0.36** | **Partial Mediation** |

In Table 4.11, the value of VAF for path II and ITZ is between 20% and 80% (0.55) and show that 55% variance in ITZ is explained by the indirect relationship between II and ITZ (i.e. II to MK and then MK to ITZ).



For path IS and ITZ, the value of VAF is between 20% and 80% (0.36) and shows that 36% variance in ITZ is explained by the indirect relationship between IS and ITZ (i.e. IS to MK and then MK to ITZ).

Hence, it is established with the help of above two mediation methods that market knowledge competence partially mediates the relationship between inclusive supply chain linkages and propensity to internationalization; and market knowledge competence partially mediates the relationship between inclusive innovation and propensity to internationalization. Therefore, overall, it can be concluded that conceptual model for this

study is fully supported by the data, analyses and results and it is evident that MK plays a major role in the relationship between IS and ITZ and II and ITZ by mediating the relationship. It is also declared that propensity to internationalization ITZ can be explained through indirect relationship II>MK>ITZ up to 55% whereas the direct relationship between II>ITZ was only 9%. Whereas, propensity to internationalization ITZ can be somehow explained through indirect relationship IS>MK>ITZ up to 36% whereas the direct relationship between IS>ITZ was only 37%.

## 4.9 Control Variables

After the mediation analysis, the mediating model is tested with the addition of demographic characteristics (DC) as controlling variable because. Therefore, the impact of mangers' education, experience and training programs attended on propensity to internationalization has been tested for this study. The measurement and structural model of the model with control variables such as EDU, EXP and TRN are discussed below.



### 4.9.1 Measurement Model Analysis

In this analysis, the significance of outer weights and multicollinearity is tested to verify the validity and reliability of the indicators of their respective constructs. For the purpose, the bias corrected and accelerated bootstrapping approach with 5000 resamples with replacement is used in SmartPLS and significance of outer weights and VIF values are obtained. Table 4.19 shows the constructs, their indicators, outer weights and their significance and VIF values in the last column.

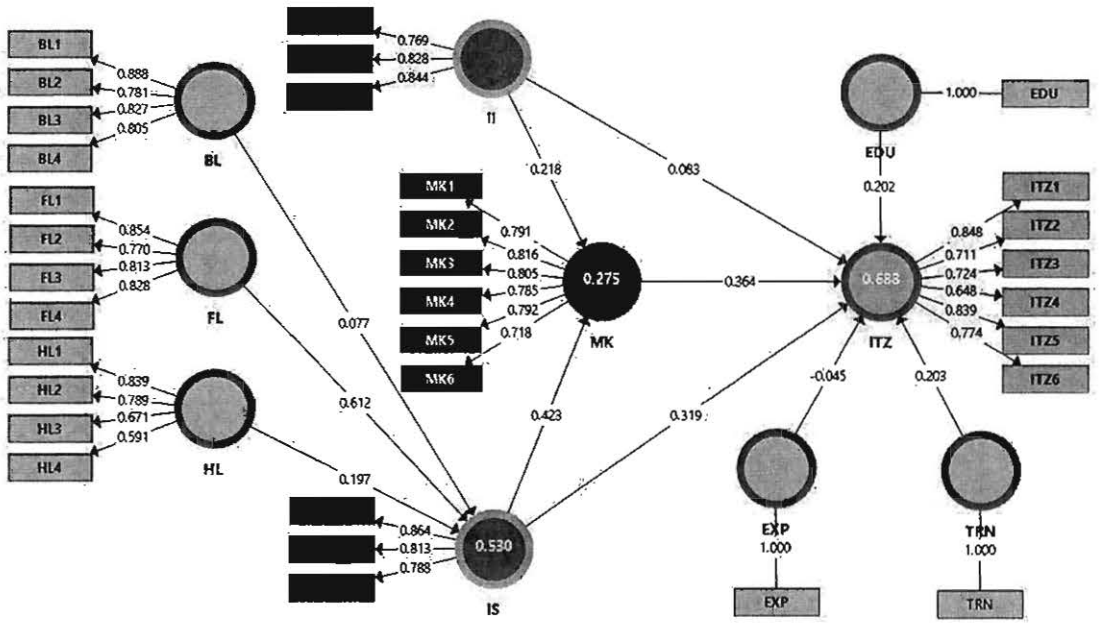


Figure 4.3
*Measurement Model*

In Table 4.12, different indicators of constructs show significance at different levels of confidence. In construct of control variables, all indicators show significance except experience. The education is positively contributing to have its relationship with the ITZ. The experience is inversely contributed to ITZ to show that early and middle career employees have high propensity to internationalization and vice versa. training program attended contribute positively and significantly to ITZ.

### 4.9.2 Structural Model Analysis

The structural model of a mediating model is shown in Figure 4.10 with the impact of demographic characteristics on propensity to internationalization. In this Figure, the indicators' weights, path coefficients and R2 values are shown.

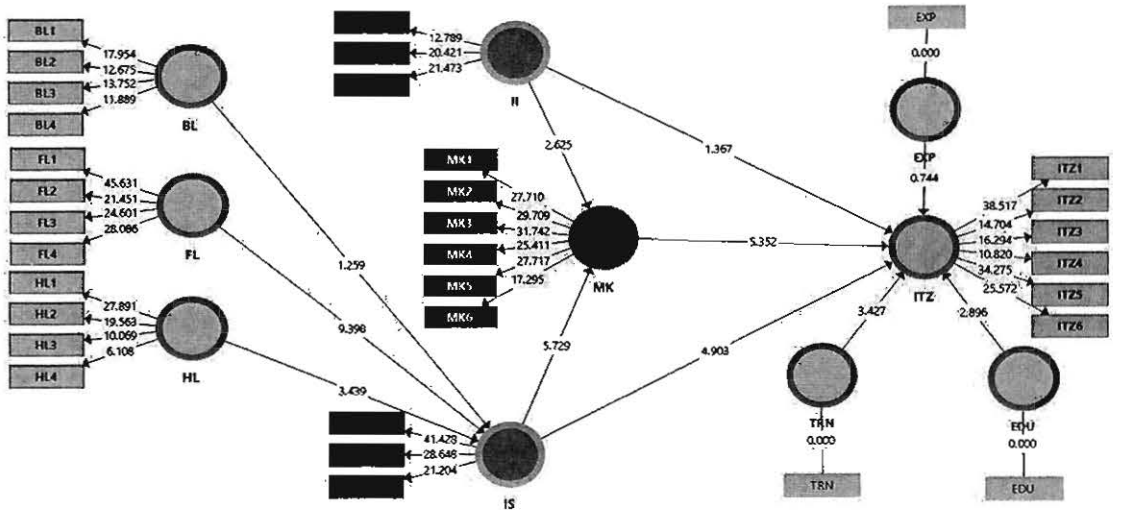


Figure 4.4
*Structural Model*

In above figure 4.4, it is shown that path coefficient of TRN and EDU with ITZ are significant at p=0.01 (t-value 3.14***, p-value 0.002) level to reflect that education and training programs attended have significantly and positively contributed to the propensity to internationalization. The Table 4.12 shows the path coefficients and significance of path coefficients between EXP, EDU and TRN with ITZ after applying Bias-corrected and accelerated bootstrap approach with 5000 resample with replacement.

Table 4.12
*Significance of path coefficients*

| Construct | Path Coefficients | T-Values | P Values |
|---|---|---|---|
| Experience | -0.045 | 0.744 | 0.450 |
| Training | 0.203 | 3.427 | 0.001*** |
| Education | 0.202 | 2.896 | 0.003*** |

***P<0.01, **P<0.05, *P<0.1

As can be seen in Table 4.12 that EDU and TRN has a significant positive impact on the ITZ when the MK as a mediator is influencing the relationship between II and ITZ and between IS and ITZ. Overall, it can be concluded that demographic characteristics of managers also play an important role in the propensity to internationalization.

## 4.10 Summary of Hypothesis

The summary of hypotheses results of this study has been presented in Table 4.13. It can be seen in the Table 4.13 that hypotheses H1-H12, H13a, and H15-H17 were supported whereas hypotheses H13, H13b-H13e, H14, and H18-H21 were found not to be supported.

Table 4.13
*Summary of hypothesis results*

| Hypothesis | Statement | Findings |
|---|---|---|
| H1 | Sustainable/inclusive supply chain linkages with BoP enterprises in host market significantly improve firm's propensity to internationalization. | Supported |
| H1a | There is significant positive influence of backward linkages with BoP suppliers on inclusive supply chain. | Not Supported |
| H1b | There is significant positive influence of forward linkages with BoP resellers on inclusive supply chain. | Supported |
| H1c | There is significant positive influence of horizontal linkages with BoP firms on inclusive supply chain. | Supported |
| H2 | There is significant positive influence of inclusive supply chain linkages on market knowledge competence of MNE managers in host market. | Supported |
| H3 | There is significant positive influence of market knowledge competence of MNE managers on propensity to internationalization in host market. | Supported |
| H3a | Market knowledge competence significantly mediates the relationship between sustainable/inclusive supply chain linkages and MNEs' propensity to internationalization. | Supported |
| H4 | There is significant positive influence of sustainable/Inclusive innovation in BoP supply chain cluster on propensity to internationalization of MNEs in host market. | Not Supported |
| H5 | There is significant positive influence of sustainable/Inclusive innovation on market knowledge of MNEs in host market. | Supported |
| H5a | Market knowledge competence mediates the relationship between sustainable/inclusive innovation in BoP supply chain cluster and MNEs' propensity to internationalization. | Supported |

## 4.11 Summary of Chapter

As the model of the research was prediction oriented aiming at theory development, this study relied on using partial least squares structural equation modelling for finding the hypotheses results. It has been found to be extremely useful in international marketing research. As such, the analysis began with description of study variables and profiling of respondents. Thereafter, the measurement model (called as outer model in Smart PLS) was evaluated for various kinds of validity and reliability aspects. It was further supported by the predictive power and goodness of fit of the model. After these, the structural model was examined to test the hypothesized relationships which were all reported in this chapter. Finally, the summary of hypotheses results was presented followed by a discussion on those results as to what they mean and why they would have resulted as such. The next chapter seeks to present key findings and contributions of this study.

# CHAPTER 5

# DISCUSSION OF RESULTS

## 5.1 Chapter Overview

This one is the last yet not least chapter of the thesis and is capstone of the research study aiming to summarize key findings and discuss and highlight managerial implications of the findings presented in chapter 4. This discussion revolves around the interpretations of the statistical results in terms of their implications for theory as well as managerial strategy and public policy. The empirical analyses have been discussed in this chapter with contribution of the study to the theory, research methods and business policy. The chapter also discusses limitations of study and directions for future research. The content of the chapter is structured as follows. The important characteristic of this chapter is to present the findings in a manner comprehendible to managers and others with no or less background of research methods and statistics. While the discussion of findings are based on what has been described in chapter 4 yet the orientation of discussion of these findings in this chapter is to enhance the readership of this scholarly work for its better outreach and impact.

After this overview of chapter, section 5.2 describes the summary of the study in relation to research problem and objectives of the study. Section 5.3 of this chapter will elaborate the key empirical findings in relations to the research questions and previous research studies. In section 5.4 the theoretical and managerial implications are explained. This is followed by the limitations of study and suggestions for future research in Section 5.5 along with conclusion in 5.6.

## 5.2 Summary of the Study

The current study aim has been to investigate the extent of impact of supply chain linkages with Base of Pyramid enterprises on the internationalization strategy of MNEs in developing host markets. This broader research problem takes its roots from the disconnection between MNEs and vast and potentially capable yet practically less competitive sector of micro and small enterprises operating in developing economies. The MNEs are considered to be the operators and carriers of global value chain network which is competitive and technologically sophisticated in its resources, operations and business outcomes. Yet these MNEs when try to tap the large developing country markets known as Base of Pyramid markets (BoPM), the managers at the parent company level and at the subsidiary level have to face challenges in subsidiary internationalization in host markets.

Before starting any empirical investigation, the research problem was theorized and supported by relevant theoretical logics available in the literature to make study variables logically connected and empirically testable. The Uppasala model and its revised network internationalization model explain that the barriers to internationalization stem from lack of market knowledge competence and high liability of outsidership owing to lack of connection with local networks in host market. There has been recently a surge in the studies offering theory and empirical support for linking MNEs with local business networks to achieve competitive advantage through cooperative advantage i.e. market knowledge competence through business networks. In addition to providing logical support to the research problem, the theory of network internationalization and theory of BoP supply chain linkages among others has provided the operationalization of key

variables of the study. The operationalization of variables thus provided has enabled collection of empirical data using structured questionnaire and its subsequent analysis in line with the research objectives. In pursuance of the research problem, the study has made theoretical, methodological and practical contributions which were either pre-requisite to carry out the study or its natural outcomes and implications. These have been discussed in detail in section 5.4 of this chapter.

The context of study has been MNE subsidiaries operating in food and beverages sector in Pakistan. For the purpose of the study only manager of those MNE subsidiaries were chosen which have considerable backward and/or forward supply chain linkages with BoP enterprises. These companies have been Friesland-Engro Foods, Coca Cola Beverages Pakistan, Unilever Pakistan and Nestle Pakistan. All of these companies have a proven track record of engaging micro and small firms/farms for either sourcing their inputs or in the reseller activities. The information has been gathered through 149 questionnaires administered by in-person surveys of supervisory and managerial level employees serving in supply chain/marketing departments. All information thus obtained is screened and analyzed to draw inferences mandated by the research problem of the study i.e. impact of sustainable supply chain linkages with BoP enterprises in host market on internationalization strategy of MNEs operating in developing country markets.

The findings suggest that the propensity to internationalization of MNE subsidiary is found to be positively determined by inclusive supply chain linkages with BoP firms in host market. The inclusive supply chain linkages with BoP enterprises directly and through mediating role of market knowledge competence tend to significantly influence

the propensity to internationalization of MNEs subsidiaries studied by this research project. This outcome provides foundation to a variety of business models that can be designed and opted for by large firms operating in developing countries to engage BoP enterprises as agents of competitiveness and market outreach.

The inclusive and locally relevant innovation represents sharing of information for product and process improvement through supply chain linkages between MNE and BoP firms in host market. This factor represents second dimension of sustainable/inclusive supply chain strategy in BoP markets and has been found to have strong influence on market knowledge competence of managers. There is a chained/mediated relationship supported by empirical data. The propensity to internationalization is significantly influenced by the market knowledge competence which in turn is associated with inclusive innovation characteristic of BoP supply chain network. The managers' propensity to internationalization thus tends to contribute to subsidiary performance in host market. The cultivation of both inclusive supply chain linkages and inclusive innovation within BoP cluster linkages is empirically supported to render the internationalization activity of MNEs in host market as economically competitive and socially inclusive/sustainable.

The market knowledge competence mediates the relationship between BoP supply chain linkages and the subsidiary's propensity to internationalization in host market. The market knowledge competence is the key variable explained in the Uppasala model and network internationalization model to determine the internationalization decisions and its extent in host markets. In line with the previous studies, this factor has been found to have

strong positive influence on propensity to internationalization of managers of MNEs' subsidiaries in Pakistan in the manufacturing subsector of food and beverages. The market knowledge on the other hand has been found to be influenced by inclusive innovation and supply chain linkages which represent extent of perceived engagement with BoP enterprises in host market. This study outcome points to the business potential of micro and small enterprises for MNEs to do business with. The quantitative data collection procedure using structured questionnaire enabled short episodes of in person interviews with the supply chain/marketing/distribution managers. This partially helped overcome the absence of open ended questions in the questionnaire to encourage deeper and unrestricted response from the respondent. The managers expressed their concern over the lack of formalization of BoP firms in terms of legal status and business operations. This factor, according to them has been major hindrance in bringing these firms in the supply chain network of MNEs. Yet a deeper probing also observed that the firms with innovative business models to engage BoP firms such as those of Nestle Pakistan, Coca Cola Beverages Pakistan and Friesland have helped overcome the lack of formalization prevalent among BoP enterprises.

Thus the probing into broader research problem of the study has brought forward both theoretical and managerial implications. These implications have been discussed in detail later in section 4.5 of this chapter. Yet a meaningful reconciliation of the results with the research problem of the study further requires discussing the specific research objectives and the contribution of the study towards those.

First objective of the study has been to examine and explain the impact of sustainable/inclusive supply chain linkages with BoP firms on MNEs' Propensity to Internationalization in developing host markets. The direction of impact of inclusive supply chain linkages between MNE and BoP enterprises on propensity to internationalization of MNE subsidiary in host market has been found positive. The influence of inclusive/sustainable supply chain strategy on the internationalization strategy has been analyzed by operationalizing the internationalization strategy as perceived propensity to continue internationalization by MNEs subsidiaries in host market. This operationalization has been supportive to the context of study and the research problem at hand. Since the target population has been the MNEs already entered and operating in Pakistan and represented by their subsidiaries, it was more appropriate to analyze the impact of supply chain linkages with BoP enterprises on the subsidiaries' propensity to continue internationalization. The propensity to continue internationalization seeks to represent market development and product development strategy along with market commitment of MNE subsidiaries in host market. Thus, without compromising the logical thrust of the proposed model of study, the propensity to continue internationalization has enabled to analyze the impact of supply chain linkages with BoP firms on dynamic process of MNEs' internationalization in host market. Moreover, propensity to internationalization of subsidiaries has been measured using perceived likelihood and possibility to increase sales, employment and commercial presence of firm in host market. The traditional measures of degree of internationalization such as sales, employment and FDI from foreign markets have been adapted to develop attitudinal measures of propensity to internationalization of MNE subsidiary in host market. The attitudinal data of perceived propensity to internationalization has been

obtained from managers in supply chain and marketing department of MNE subsidiaries through structured questionnaire.

Inclusive supply chain linkages have been operationalized by extent of firm's engagement of BoP enterprises in their supply chain network. The construct of inclusive supply chain cluster linkages has been developed by three categories of supply chain linkages i.e. backward supply chain, forward supply chain and horizontal supply chain linkages in order to access the extent of engagement of BoP enterprises in either of these activities. This categorization has also helped to access the varying level of engagement of BoP enterprises in all three categories of supply chain network linkages of MNEs working with these firms in Pakistan. Furthermore, each category of supply chain linkages has been measured using four indicators namely exchange of information, joint marketing (product development/market development), payment and delivery mechanisms, training participation. These indicators measured using 5 points likert scale together express the extent of supply chain cooperation and capability between MNE subsidiary and BoP enterprises. The supply chain/mareketing staff in sampled MNE subsidiaries were asked to share their perception about the engagement of BoP enterprises in supply chain activities of the MNE subsidiary using these dimensions and indicators. The operationalization and resulting data thus obtained enabled to meet the second objective of the study aiming to measure the impact of inclusive supply chain linkages with BoP enterprises on propensity to internationalization of MNEs subsidiaries operating in Pakistan.

Second objective of the study has been to investigate into mediating impact of market knowledge competence in the relationship between sustainable/inclusive supply chain and MNEs' Propensity to Internationalization in developing host markets. The Uppasala model and its revised model of network internationalization shed light on the market knowledge competence about host market as the major determinant of MNEs' internationalization strategy or foreign market commitment. The impact of inclusive supply chain on propensity to internationalization has been measured both directly as well as indirectly through mediating role of market knowledge competence. In analyzing this research objective, the study focused on identifying specific types of market knowledge that constituted the market knowledge competence of MNEs in context of their participation in supply chain network to enhance their internationalization performance. The construct of market knowledge competence outcome is operationalized by using 5-point likert scale to measure 6 indicators namely customer knowledge, competitors knowledge, local environment knowledge, knowledge of local supply chains networks, communication systems for supply chain. The later three indicators represent relational knowledge competence or BoP network knowledge competence to measure the experiential knowledge outcomes of engaging with BoP enterprises in supply chain network. The studies on network theory of internationalization term the knowledge competence obtained through network participation as relational knowledge competence, network knowledge competence, network embeddedness, cooperative capability and native capability. Thus the construct to measure market knowledge competence has made use of knowledge outcomes related to customers, competitors, local environment, communication systems, supply chain management and interpersonal relationship with BoP supply chain members in local market. The network internationalization literature

also terms four market knowledge capabilities acquired through network participation namely: new product development, marketing planning and implementation, alliance management, alliance learning. The construct of market knowledge competence used in present study measures all these four knowledge capabilities through its six indicators. The strong mediating effect of market knowledge competence has been observed compared to direct effect of inclusive supply chain linkages confirming the assertion the MNE activity is knowledge intensive.

Third objective of the study has been to examine and explain the impact of sustainable/inclusive innovation arising from supply chain linkages with BoP firms on MNEs' Propensity to Internationalization in developing host markets. Sustainability/inclusiveness of supply chain strategy by engaging BoP enterprises has been operationalized by measuring its two dimensions namely inclusive supply chain linkages and inclusive innovation. Supply chain networks are characterized by both flow of raw materials and products as well as information and knowledge among supply chain members. This objective of the study aimed to analyze the knowledge dynamics and outcomes of BoP supply chain strategy for propensity to MNEs internationalization. An inclusive supply chain strategy needs to be designed and executed to ensure shared flow of information and knowledge to achieve shared competitiveness and market outreach. MNEs in developing countries host markets are specifically interested in expanding their outreach to BoP market (BoPM). This requires innovation in product and processes that is relevant to BoP market. This critical knowledge required by MNEs to realize commercial success is carried by BoP enterprises in developing host markets. Thus the inclusive innovation dimension of BoP supply chain network has been measured using three

indicators namely product and process adaptation to make it relevant to BoPM, obtaining ideas and experience from BoP enterprises and sharing ideas and experience with BoP enterprises in supply chain network. An inclusive innovation strategy may provide the MNE with the information and knowledge about product and market development to enhance its market outreach in host market. Such inclusive innovation strategy thus enable sharing of such information between MNE and BoP enterprises to achieve shared competitiveness and growth. The three indicators representing construct of inclusive innovation measure extent of inclusive innovation through BoP supply chain network. The first indicator represents the critical innovation desired by MNEs for product and market development for better customer outreach in BoPM. Whereas later two indicators measure the extent to which information sharing mechanism have been deployed in supply chain network by MNEs to share desired product and market knowledge with BoP enterprises in host market. This operationalization has enabled to successfully achieve the objective of analyzing the impact of inclusive innovation on the propensity to internationalization of MNE subsidiaries in Pakistan. The results of the study suggest no direct significant impact of inclusive innovation on the propensity to internationalization of MNE subsidiaries. This result represents two possible explanations. First, inclusive innovation construct has been found to have significant positive influence on market knowledge competence which in turn influences the propensity to internationalization of MNE subsidiary. Since sharing of knowledge and information through supply chain mechanism is more related to market knowledge of managers, it therefore seems more plausible to analyze indirect effect of inclusive innovation on propensity to internationalize through mediating role of market knowledge competence. Secondly, most of MNE subsidiaries use BoP enterprises as forward supply chain allies to 'push' their

products and services to the target market. In addition, only few MNEs use the potential of BoP enterprises' potential as suppliers of inputs. Due to the minimal and specific role assigned to the BoP enterprises in the supply chain linkages, there is relatively less attention given to enable these linkages for knowledge and information sharing between MNE subsidiary and BoP enterprises. Thus the managers fail to perceive any direct association between inclusive innovation and the firms' product development and market development strategy.

Fourth objective of the study has been to investigate into mediating impact of market knowledge competence in relationship between sustainable/inclusive innovation and MNEs' Propensity to Internationalization in developing host markets. The empirical data was collected to analyze to what extent market knowledge competence tended to mediate the relationship between inclusive innovation in BoP supply chain network and propensity to internationalization of MNE subsidiaries in food and beverages sector of Pakistan. The indicators used to measure market knowledge competence covered various aspects of experiential knowledge which are associated with internationalization performance of MNEs in host market. The objective was achieved by measuring the relationship between inclusive innovation and market knowledge competence and also between market knowledge competence and propensity to internationalization. The comparison of direct relationship between inclusive innovation in BoP supply chain linkages and MNEs' propensity to internationalization and indirect relationship through mediating role of market knowledge competence has enabled to draw useful inferences.

## 5.3 Key Findings of the Study

This section describes and explains the key findings of the study in terms of empirical results obtained about relationship among key variables of the study. This understanding will be helpful in understanding bits and parts of the research problem studied and thus drawing precise theoretical and practical implications.

### 5.3.1 Relationship between Inclusive Supply Chain Linkages and Propensity to Internationalization

This hypothesis of positive influence of inclusive supply chain and propensity to internationalization has been found significant. This describes that supply chain and marketing staff of MNEs subsidiaries in host market are successfully utilizing the potential of BoP enterprises to enable and strengthen their market deepening and outreach in Pakistan. This finding implies that market seeking nature of MNEs subsidiaries in most of the developing host markets can make use of BoP enterprises in their supply chain network to strengthen their market development and commercial presence. A number of rational justifications are associated with this positive relationship. The BoP enterprises operate as mostly family ventures utilizing unpaid family workers and thus have lower explicit cost of running business. This lower cost can help MNE subsidiaries to reach to the vastly populated target market in developing host markets. Moreover, the BoP enterprises bear the traditional capacity to operate without much infrastructural support in vast rural and complex yet populated interior urban areas. These firms serve the market where usual formal sector finds difficult to operate in and serve the potential target market. The BoP enterprises are mostly run by women and those sections of society which are usually ignored or have less access to formal sector of economy. By engaging

BoP enterprises the internationalization activity of MNE subsidiaries becomes more socially sustainable. Moreover, their low cost business model also represents opportunity to source in the low cost supplies/supplies from them. The traditional business models of MNEs and large firms have ignored them due to the lack of scale of their activity to match with their large scale operations. However, the experience of Nestle Ltd and Friesland Ltd to source in milk from small farmers has changed the traditional thinking. To sum up, by engaging the BoP enterprises in the supply chain network, the MNE subsidiaries are earning a competitive advantage over their rivals through cooperative advantage stemming from BoP supply chain linkages.

### 5.3.2 Relationship between Inclusive Supply Chain and Market Knowledge Competence of MNEs

In response to second research question of the study, this relationship was analyzed at two levels. First the varying influence of backward, forward and horizontal supply chain linkages on the inclusive supply chain strategy has been analyzed. Second, the influence of inclusive supply chain linkages on market knowledge competence has been analyzed to test the main hypothesis of the study.

The results suggest that forward supply chain linkages have the relative higher contribution in the supply chain linkages with BoP enterprises compared to backward and horizontal linkages. The supply chain linkage categories in terms of their role in the cluster are backward linkages and horizontal linkages, respectively. This result implies that most of the MNE subsidiaries in Pakistan are currently utilizing the BoP enterprises

in the reseller activities to enhance their market outreach. Since all the MNEs subsidiaries in this study belong to food and beverages sector, the main objective or corporate manifestation of MNE subsidiary is around market development and penetration in host market. Since most of the technological knowledge sharing is possible in backward linkages to ensure quality of inputs, the week backward linkage also implies that MNE subsidiaries are relying on the research and development (R&D) provided by the corporate head office. The backward linkages and horizontal linkages (linkages with other BoP firms in market) are characterized for their strong role in the knowledge and skill intensive MNE activity. Their week role represents lack of local R&D capacity building of MNE subsidiaries. This finding also explains the lack of education and skilled education prevalent among the BoP enterprises in Pakistan which is a prerequisite for meaningful explicit knowledge collaboration between supply chain partners. This aspect, therefore, calls for the attention of the policy makers to devise the technical and formal education strategy for the micro and small enterprises in Pakistan and other developing economies. To make this strategy more effective, coordination with MNE subsidiaries and large local firms may be carried out to design appropriate training programs.

The second layer of analysis of this dimension is looking into direct association of inclusive supply chain linkages with market knowledge competence of managers of MNE subsidiaries. This relationship has been found to be significant and positive. This implies that strong supply chain linkages with BoP firms in host market enhance the market knowledge competence of supply chain managers of MNE subsidiaries and vice versa. The construct of market knowledge competence represents experiential knowledge about customers, competitors, market environment, supply chain management and supply chain

learning stemming from engaging with BoP enterprises in supply chain network. The significant association between inclusive supply chain linkages with BoP firms and market knowledge competence implies strong role of BoP supply chain cluster to absorb and embed the experiential knowledge about host market, which is largely tacit in nature.

### 5.3.3 Relationship between Market Knowledge Competence and Propensity to Internationalization of MNEs

The relationship between market knowledge competence and propensity to internationalization has been found significant and positive. The market knowledge competence is the key variable of the internationalization strategy of MNEs. The literature and empirical studies in IB and IM suggest K assets as the driver of internationalization. The Uppasala process model and network theory of internationalization explain the role of market knowledge competence that MNEs acquire over the course of their business in host market. The acquisition of knowledge and understanding about local market environment, customers, competitors, supplier and resellers enable the firm to increase its market commitment in the host market. The experiential nature of market knowledge renders the engagement of MNE subsidiary in the host market networks as the quick and effective way to socially embed in the local business system. This in turn enhances firms' market penetration and growth in host market. This result implies that MNEs subsidiaries propensity to internationalization is knowledge driven. The study further suggests that knowledge gained through BoP supply chain networks has significantly improved the propensity of managers to perceive market opportunities in host market and enhanced their motivation to look into the possibilities to expanding sales, jobs and enhanced commercial presence. The effectiveness of

knowledge gained through BoP supply chain networks also implies about the innovation and knowledge potential of BoP market that needs to be capitalized.

### 5.3.4 Mediating Role of Market Knowledge Competence in the Relationship between Inclusive Supply Chain Linkages and Propensity to Internationalization

The market knowledge competence has been found to have a significant positive mediating role in relationship between inclusive supply chain linkages and propensity to internationalization of MNE subsidiaries. This result is in line with the existing literature in the firm internationalization in which market knowledge competence assumes central position in the internationalization behaviour of the firm. The result suggests even strong indirect role of inclusive supply chain linkages with propensity to internationalization. This implies high knowledge spill over effect associated with BoP supply chain linkages which magnifies their relationship with the internationalization process.



### 5.3.5 Relationship between Inclusive Innovation and Propensity to Internationalization of MNEs

The findings suggest no significant relationship between inclusive innovation and propensity to internationalization of MNE subsidiaries. This finding suggests that the knowledge sharing mechanisms between MNEs and the BoP allies have no direct relationship with their internationalization outcomes. It may be due to that the MNEs supply chain linkage with BoP firms is based on more a transactional relationship with them and managers see no significant role of them to share their knowledge and expertise with.

### 5.3.6 Relationship between Inclusive Innovation and Market Knowledge Competence of MNEs

This inclusive innovation represents second dimension of sustainable/inclusive supply chain strategy of MNEs with BoP enterprises has been found to have strong influence on market knowledge competence of managers. An inclusive innovation strategy may provide the MNE with the information and knowledge about product and market development to enhance its market outreach in host market. Such inclusive innovation strategy thus enables sharing of such information between MNE and BoP enterprises to achieve shared competitiveness and growth.

### 5.3.7 Mediating Role of Market Knowledge Competence in the Relationship between Inclusive Innovation and Propensity to Internationalization

There is a chained/mediated relationship supported by empirical data. The propensity to internationalization is significantly influenced by the market knowledge competence which in turn is associated with inclusive innovation characteristic of BoP supply chain network. The market knowledge competence mediates the relationship between inclusive innovation and the subsidiary's propensity to internationalization in host market. The market knowledge competence is the key variable explained in the Uppasala model and network internationalization model to determine the internationalization decisions and its extent in host markets. In line with the previous studies, this factor has been found to have strong positive mediating influence between inclusive innovation and propensity to internationalization of managers of MNEs' subsidiaries in Pakistan in the manufacturing subsector of food and beverages.

To sum up, cultivation of both inclusive supply chain linkages and inclusive innovation within BoP cluster linkages is empirically supported to render the internationalization activity of MNEs in host market as economically competitive and socially inclusive/sustainable.

## 5.4 Theoretical and Practical Contribution

This study has contributed to the emerging body of literature in international marketing and business by linking theoretical strands of BoP market, sustainable supply chain, network theory and internationalization theory. The study has linked inclusive supply chain linkages with BoP firms in host market with internationalization process and performance of MNEs. A number of theoretical contributions are associated with the investigation into the research problem of the study. First, the findings of present study have contributed by extending the network theory of internationalization to link MNEs internationalization strategy with network linkages with BoP enterprises in host market. This has been termed as theory of BoP network internationalization. This theoretical development is result of the need for backing the proposed model of study with appropriate theoretical grounds. Secondly, the operationalization of variables to meet the requirement of quantitative research design opted for by the study has helped refine the measurement model to enable empirical testing of the proposed structural model of the study. Thirdly, the research process also enabled coining of new terms such BoP network advantage, cooperative advantage, economies of networking and sustainable/inclusive internationalization strategy to elaborate context of BoP supply chain cluster linkages as explained in chapter 2.

The study findings are of potential interest to managers in MNEs and large firms in developing economies who are interested to expand into untapped BoP markets. The literature and practice of sustainability initiatives at firm level have been limited to acts of charity and philanthropy. The study findings suggest business rationale for doing well by doing good concept. The findings imply that an inclusive/socially sustainable business strategy can be built around engaging poor communities in the business processes for mutual gains in innovation, competitiveness and market outreach. The study findings also offer managers a social impact of business while remaining focused on the bottom line i.e. profit and business value. BoP markets are thus new frontiers of bottom line i.e. profit with purpose. MNEs managers at parent company level and subsidiary level can utilize BoP market not just a potential consumer market but as viable business allies.

The positive relationship between inclusive supply chain and market knowledge competence suggests deepening the supply chain networks into host market as a mean of acquiring tacit and experiential knowledge needed by MNEs for successful market development. This relationship further suggests that relational competence that network competence which is the essential competence to achieve cooperative advantage can be best acquired through engaging with BoP firms.

The positive relationship between shared innovation and market knowledge competence suggests expanding and formalizing inter-organizational information and communication systems with BoP enterprises to access and utilize their potential for gaining better insights about customers, product development and joint marketing activities.

The inclusive supply chain linkages have also been found to have direct positive impact on the internationalization strategy of MNEs in host market. This calls for expanding the supply chain network of MNEs to include BoP enterprises in forward, backward and horizontal supply chain activities. BoP supply chain linkages are now new tools available to the managers in MNEs to enhance their market development performance.

The policy makers in developing economies and supranational institutions such as World Bank, ADB, IMF and others who are interested in poverty alleviation through markets can utilize the study findings. The internationalization strategy of MNEs determined by their sustainable BoP supply chain cluster linkages has been empirically supported to have been positively influenced by their market knowledge competence, inclusive supply chain linkages and inclusive innovation in host markets. In addition, MNEs as global carriers of innovation, competitiveness and business opportunities also offer opportunities for direct and indirect effects on shared innovation and entrepreneurship with BoP enterprises in host economies. Yet the lack of formalization of BoP market requires on part of policy makers in developing economies to take necessary legal framework, contract laws and friendly taxation policy for this vast business sector of BoP enterprises to link those with formal supply chain networks.

The study has implications for the policy makers and managers of industrial districts and clusters in developing economies. The concept and application of SMEs clusters and industrial districts in developing economies like Pakistan is already well underway. The findings of present study suggest linking those clusters and industrial districts with

MNEs' supply chain networks to boost learning, competitiveness and market outreach of the BoP enterprises/MSEs operating in those cluster programs. The study also suggest creating new industrial districts of BoP enterprises at village and town level in proactive coordination with MNEs to create demand driven and globally knitted clusters. These MNE-linked clusters of BoP enterprises can be important mechanisms to overcome the issue of formalization of this sector and can add up to the confidence of MNEs to add them to their supply chain networks.

## 5.5 Limitations of Study and Directions for Future Research

Some of the limitations of this study deserve consideration. The first of these is the acknowledgement that this was a specific study of MNE subsidiaries operating in the manufacturing subsector, food and beverages industry – a consumer goods industry. Thus, the findings and the implications of the study can only be generalized for the manufacturing sector firms and that too related to market seeking consumer goods industry. The services firms differ significantly in terms of their internationalization process and its dynamics. This implies that the generalization of findings should be made with caution for services sectors MNEs internationalization. Moreover, this study analyzed the propensity to internationalization of the firms already entered in the host market where the subsidiary internationalization objectives and strategy is mostly confined to product development and market development strategy. However, expansion of commercial presence/plant expansion which represents degree of market commitment can also be one of the internationalization task to be considered at subsidiary level. Moreover, the study makes use of attitudinal indicators of internationalization such as

propensity to increase sales, employment and investment in host market. Also the construct of inclusive innovation in BoP supply chain may need further enrichment as the concept is under rapid evolution and developments are being made to better explain and measure it. Furthermore, the conceptualization of inclusive supply chain has been made in terms of supply chain linkages with BoP firms. However, inclusive supply chain can have other dimensions also to render it socially responsive which have not been discussed by this study. For example, the issue of pricing among supply chain members is an important point of concern and involves ethical issues in terms of social sustainability. The prices in a market based economy are determined by demand and supply and yet are influenced by the relative market power of buyers and sellers among others. Supply chain network represents transactions between business buyers and sellers where high monopsony power to influence market price lies with large firms. Given the much less bargaining power of BoP enterprises in the supply chain network, the setting of ethical pricing by MNE managers require responsible management practices and values driven leadership on their part. Further research studies and theoretical developments may be required to elaborate this phenomenon.

Present study focuses mainly the social sustainability dimension and thereby seeks to address the issues of social sustainability of MNEs' internationalization strategy. However, the concept and application of sustainability follows triple tier approach i.e. economical, environment and social. The social sustainability dimension answers to the question of whether internationalization strategy of MNE engages the poor communities in its production and/or product strategy in host market. There is need to study the environmental outcome of engaging poor communities in the supply chain network.

Several other suggestions for future research can be offered by this study. It is suggested to segregate the construct of market knowledge competence of firms to express it in terms of market knowledge competence, relational/network competence and technological knowledge competence etc. Similarly the proposed model of the study can be reexamined in context of services MNEs and other manufacturing MNEs with resource seeking, technology seeking or skill seeking motives. Future studies may make use of behavioral indicators of internationalization such as actual sales, employment investment of MNEs in the host market. Moreover, further studies can be conducted on BoP supply chain linkages of emerging market MNEs in home market in order to enhance the explanatory power of the proposed model. The theoretical model also proposes strong influence of BoP supply chain cluster linkages of MNEs on inclusive entrepreneurship opportunities in host market. Further empirical research may further explain the phenomenon. The initiation and success of supply chain linkages between BoP enterprises and MNEs/large domestic firms largely depends on the prevalence of contract laws and intellectual property laws, formalization of legal status of BoP firms and a fair taxation policy supportive of business transactions to not hamper the price competitiveness of these firms. These issues have been beyond the scope of current study yet these offer important areas where further research studies need to be conducted.

Finally, working with BoP firms in supply chain networks requires innovation in the business models opted for by the MNEs in host market. This innovation and adoption of new business models requires commitment and responsible leadership traits by top leadership as a critical success factor. Further studies may look into the role of top

management commitment and support for inactment and success of sustainable/inclusive supply chain linkages.

## 5.6 Conclusion

The idea and application of the Base of Pyramid (BoP) market was earlier presented by Parhalad and Hart (2002) and since then it has been under transition to consider the poor communities in the host market more as potential producers and business partners (BoP 2.0) than mere potential consumer market (BoP 1.0). MNEs, in order to pursue a blue ocean strategy, are increasingly interested in engaging with micro and small firms termed as BoP enterprises in host market to bring sustainable competitiveness to their supply chain networks and internationalization strategy in host markets. However, the literature within corporate social responsibility, international business and marketing seldom offers economic and business rationale (i.e. bottom line) other than the philanthropic one for engaging the micro and small firms in the supply chain networks. Present study extends the theory of network internationalization to link it with supply chain linkages with BoP enterprises in host market. It investigates the influence of supply chain linkages with BoP enterprises in host market on market knowledge competence of MNE managers and thereby internationalization strategy of MNEs in host market. Quantitative research design is used to empirically examine the key relationship theorized for the study. The study has collected and analyzed data using questionnaire filled by sample of marketing/supply chain managers in MNEs in Pakistan, which have maintained BoP supply chain cluster in their business model. Both direct impact of BoP supply chain cluster linkages on propensity to continue internationalization and mediated through

market knowledge competence have been analyzed. The result of the study indicate that BoP supply chain cluster linkages operationalized as inclusive supply chain and inclusive innovation have significant positive impact on market knowledge competence of supply chain managers and thereby lead to greater propensity to internationalization in host market. Nonetheless, findings of the study would be useful to managers in MNEs operating in developing economies who are interested in their firms' international competitiveness and market penetration in host markets. The outcomes of the study also have implication for policy makers in developing countries interested in poverty alleviation through market based policy interventions.

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**Appendix**

# Questionnaire of the Study

# Research Questionnaire for Doctoral Study

**Section I: Introduction of the Study and Identification of Respondent**

***Topic*** Impact of Sustainable Supply Chain Linkages with BoP Firms on MNEs' Internationalization: Mediating Role of Market Knowledge Competence

***Background*** Concept and application of the sustainable supply chain also termed as BoP cluster refers to engaging micro and small firms in supply chain networks by MNEs in host markets. It is yet to ascertain how this inclusive supply chain strategy and inclusive innovation strategy affects the market knowledge competence and MNEs internationalization in host markets.

**Objectives** **1-** This survey seeks to analyze the MNEs managers' perceptions about level of supply chain cooperation and level of shared innovation with BoP firms (micro and small enterprises) in their supply chain cluster.

**2-** The survey seeks to analyze the impact of sustainable supply chain linkages and shared innovation on their market knowledge competence:

**3-** The survey seeks to analyze the impact of BoP supply chain cooperation and shared innovation on MNEs managers' propensity to internationalization i.e. sales, employment, assets in host market.

**Disclosure** **The respondent has right to not disclose her/his personal identity. Kindly mention to the field worker if it is required so.**

**Privacy Policy:** Universiti Utara Malaysia has explicit policy to use findings of research study for research purpose only without disclosing to third party.

**Company Name:** _____

**Manager Name:** _____

Thank you for giving your valuable time and effort to fill in this questionnaire. Your cooperation in the completion of this research study is highly appreciated and acknowledged.

Sincerely,

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# Research Questionnaire for Doctoral Study

## Section II: Company and Manager's Profile

**Manager's Profile**

1) Highest education level (EDU)

☐ High School/Diploma ☐ Graduate

☐ Postgraduate ☐ Professional

2) Training programs attended

☐ Supervisory Staff ☐ Middle Manager

☐ Top management

3) Number of years of total experience (EXP)

☐ Less than 5 years ☐ 5 to 10 years

☐ 10-15 years ☐ Above 15 years

# Research Questionnaire for Doctoral Study

## Section III: Research Questions

The section consists of statements on MNEs managers' perceptions about their level of cooperation with BoP firms (micro and small firms) in their supply chain cluster.

**Please encircle the appropriate answer that best represents your opinion about the question using the scale below to indicate your level of agreement or disagreement.**

| Strongly Disagree (SD) | Somewhat Disagree (D) | No Opinion/ Not sure (NS) | Somewhat Agree (A) | Strongly Agree (SA) |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

| Q. 1 | What is the company's propensity to continue internationalization in Pakistan Market? 1=Highly Unlikely 5=Highly Likely | | | | | |
|---|---|---|---|---|---|---|
| ITZ1 | Likelihood of the firm towards increasing sales in Pakistan market | 1 | 2 | 3 | 4 | 5 |
| ITZ2 | Possibility of increasing the firm's sales in Pakistan market | 1 | 2 | 3 | 4 | 5 |
| ITZ3 | Likelihood of the firm towards increasing employment in Pakistan market | 1 | 2 | 3 | 4 | 5 |
| ITZ4 | Possibility of increasing the firm's employment in Pakistan market | 1 | 2 | 3 | 4 | 5 |
| ITZ5 | Likelihood of firm towards increasing commercial presence in Pakistan market | 1 | 2 | 3 | 4 | 5 |
| ITZ6 | Possibility of increasing firm's commercial presence in Pakistan market | 1 | 2 | 3 | 4 | 5 |

| Q. 2 | The company maintains supply chain relationship with BoP firms (small and micro enterprises). | | | | | |
|---|---|---|---|---|---|---|
| IS1 | Supply chain cooperation with BoP suppliers | 1 | 2 | 3 | 4 | 5 |
| IS2 | Supply chain cooperation with BoP resellers | 1 | 2 | 3 | 4 | 5 |
| IS3 | Supply chain cooperation with other BoP firms | 1 | 2 | 3 | 4 | 5 |

| Q. 3 | The company promotes two-way innovative capability through relationship with BoP firms (small and micro enterprises) as members of supply chain cluster. | | | | | |
|---|---|---|---|---|---|---|
| II1 | Adapts its products to make them relevant for BoP market | 1 | 2 | 3 | 4 | 5 |
| II2 | Obtains ideas from BoP firms in its products and processes | 1 | 2 | 3 | 4 | 5 |
| II3 | Shares its expertise to improve performance of BoP firms | 1 | 2 | 3 | 4 | 5 |

# Research Questionnaire for Doctoral Study

| Q. 4 | To what extent company's supply chain relationship with BoP firms (small and micro enterprises) has influenced its cooperative/native capability/market knowledge competence | | | | | |
|---|---|---|---|---|---|---|
| MK1 | More and better knowledge about customers through BoP allies | 1 | 2 | 3 | 4 | 5 |
| MK2 | More and better knowledge about competitors through BoP allies | 1 | 2 | 3 | 4 | 5 |
| MK3 | More and better knowledge about local environment | | | | | |
| MK4 | More and better understanding to manage supply chain activities at BoP level (alliance management) | 1 | 2 | 3 | 4 | 5 |
| MK5 | Information/communication systems have been adapted to integrate with BoP allies (alliance communication) | 1 | 2 | 3 | 4 | 5 |
| MK6 | More and better ability to share learning with BoP allies | 1 | 2 | 3 | 4 | 5 |

| Q. 5 | Following explains the company's supply chain cooperation with its BoP supplier firms. | | | | | |
|---|---|---|---|---|---|---|
| BL1 | Exchange of information and experience | 1 | 2 | 3 | 4 | 5 |
| BL2 | Joint marketing (product development/market development) | 1 | 2 | 3 | 4 | 5 |
| BL3 | Negotiation of payment and delivery system | 1 | 2 | 3 | 4 | 5 |
| BL4 | Training participation | 1 | 2 | 3 | 4 | 5 |

| Q. 6 | Following explains the company's supply chain cooperation with its BoP reseller firms. | | | | | |
|---|---|---|---|---|---|---|
| FL1 | Exchange of information and experience | 1 | 2 | 3 | 4 | 5 |
| FL2 | Joint marketing (product development/market development) | 1 | 2 | 3 | 4 | 5 |
| FL3 | Negotiation of payment and delivery | 1 | 2 | 3 | 4 | 5 |
| FL4 | Training participation | 1 | 2 | 3 | 4 | 5 |

| Q. 7 | Following explains the company's supply chain cooperation with other BoP firms. | | | | | |
|---|---|---|---|---|---|---|
| HL1 | Exchange of information and experience | 1 | 2 | 3 | 4 | 5 |
| HL2 | Joint marketing | 1 | 2 | 3 | 4 | 5 |
| HL3 | Joint product development | 1 | 2 | 3 | 4 | 5 |
| HL4 | Negotiation of payment and delivery | 1 | 2 | 3 | 4 | 5 |
| HL5 | Training participation | 1 | 2 | 3 | 4 | 5 |